

CONSUMERS UNION *Reports*

Volume 4, Number 8

AUGUST 1939

\$3 a Year, 25c a Copy



Technical, Medical & General Reports in This Issue

THE NEW STUDEBAKER CHAMPION	Page 3	FOOD POISONING: SOME PRECAUTIONS	Page 1
THE RAILROADS vs. THEIR PASSENGERS	Page 4	PERSPIRATION, BODY ODOR & DEODORANTS	Page 1
WOMEN'S SLIPS: RATINGS OF 60	Page 9	RATINGS OF NEW CAMERAS & EQUIPMENT	Page 2
FAITH IN ADVERTISING: WHAT ABOUT IT?	Page 14	ELECTRIC TOASTERS: TEST RESULTS	Page 2

Complete Table of Contents will be found on Page 2

CONSUMERS UNION OF UNITED STATES, INC.

17 Union Sq. W.  1 New York City

Contents for August 1939

CU's ratings of products are based on both quality and price. A product rated "Also Acceptable" may be of higher quality than one rated "Best Buy" but the "Best Buy" will normally give greater return per dollar. In most cases a product rated "Not Acceptable" is judged not worth buying at any price, because of inferior quality or because it is potentially harmful. Products rated "Not Acceptable" for more specific reasons are so noted.

The Studebaker Champion: A Tentative Report . . .	3
Railroad Passenger Equipment & Service . . .	4
CU's New Laboratory	7
Women's Slips: With Ratings of 60	9
The Docket: Government Actions	13
Crowell Publications: An Answer to Them . . .	14
CU's World's Fair Exhibit	16
Medical Section	
Food Poisoning: By Morton S. Biskind, M. D. . .	17
Perspiration, Body Odor & Deodorants . . .	19
New Cameras & Photographic Equipment:	
With Comparative Technical Data & Ratings . .	21
Electric Toasters: Test Results on 34 Models .	28

CONSUMERS UNION is operated on a strictly non-profit basis under the Membership Corporation laws of New York State. Its income is derived from members' fees and from small contributions by members. It has no connection with any commercial interest.

Consumers Union's own technicians conduct many of the tests and investigations on which ratings are based. The greater part of the testing, however, is done by consultants—more than 200 specialists selected for their competence and freedom from commercial bias—in university, governmental and private laboratories.

Samples for test are in almost all cases bought on the open market. Whenever time and the nature of the product allow, testing is done by actual use trials as well as by laboratory analyses.

Supplementary labor reports are published regularly. Entirely independent of the technical reports, these do not affect ratings.

CONSUMERS UNION publishes two monthly editions of the *Reports*—full and limited. The full edition contains reports on many higher-priced products not carried in the limited.

Members receive also an annual *Buying Guide* (full or limited)—a compact booklet designed for quick reference in shopping.

Membership fees are \$3, of which \$2.50 is for subscription to the full edition; or \$1, of which 60¢ is for subscription to the limited. Reduced group fees are available to students, members of trade unions, consumer clubs and other organizations.

All members have the right to vote on candidates for the Board of Directors and on resolutions on policy at the annual meetings.

The Consumer Reporter

How It Happens

Frau Emmy Riedl was once editor of a German cooperative paper in the Sudetan area. Now she's a refugee. The thriving Sudetan cooperative movement used to serve nearly a quarter of a million families. Now, says Frau Emmy Riedl, it is gone. The Nazis started to work on the co-ops, she says in *The Cooperative Builder*, as early as 1935. But before Munich the movement managed to hold together despite the terrorism applied to it. After Munich it was curtains. First came looting; then came confiscation. Pretty soon, she reports, "members of local societies had to buy from private traders at a higher price goods which had been taken from their co-op stores." Meantime, one Dr. Mayer-Exner, a noted antagonist of the co-ops, had been appointed "commissar" of the whole movement. Frau Riedl quotes a Sudetan Nazi as saying last February that "private trade has no more to fear from the co-ops."

Publicist's Problem

We wish to record receipt of a little pamphlet from the Institute of Public Relations, Inc., which is headed up by Mr. Bernard Lichtenberg, who is a past president of the Association of National Advertisers. As a business publicist Mr. Lichtenberg has problems, and the little pamphlet—reprint of a speech he gave to some sales managers—goes into one of them. He starts by quoting:

Said a hard-pressed business man recently: "Why haven't you public relations men done more? Why haven't your combined brains, if any, abolished such disturbing things as strikes and lock-outs, Congressional investigations and witch-hunts, along with the National Labor Relations Board, Madam Perkins and John L. Lewis, the *Consumers Union Reports*, and the 'Business Troubles' section in the newspaper?"

Mr. Lichtenberg goes on to say that that's too large an order for a public relations man, and we can see his point. He thinks that business has got to get over its "ignorance of what people really think and want" before the public relations experts can do a real job on its "enemies." If cosmetic manufacturers, says Mr. Lichtenberg, "lose public confidence by claiming that the latest face cream will make women of sixty look like twenty, isn't there an obvious solution"? We think so. But we don't think the manufacturers do. Let us know if you have any luck, Mr. Lichtenberg.

Little Victory

Telephone users can congratulate themselves on the partial victory won for them a few weeks ago in the sale of \$25,000,000 of Southern Bell Telephone & Telegraph Co. debentures. A not inconsiderable part of your telephone bill goes to pay interest and bankers' charges on telephone investments. And these are customarily set by negotiations between the company and one banker.

In the case of the Southern Bell, although a concerted movement by minority bondholders, State public utility commissions and others failed to force the A. T. & T.'s chief subsidiary to throw open the securities sale to competitive bidding, the pressure did force Morgan, Stanley & Co., traditional underwriters of telephone bonds, to pull in their belts.

Morgan, Stanley & Co. and associated bankers made only \$333,750 out of the deal, buying the securities at 106 and selling to the public at 107 1/2—the smallest "spread" ever made by the bankers on comparable securities. The interest cost to the company will be about \$687,500 a year, as against \$750,000 had the debentures been taken by the bankers at par, as the last issue was.

Peccolarily enough, the fight to enforce competitive bidding is a fight to force utility companies to save their own money. Enforcement of competitive bidding is a consumer issue which should be fought to a finish.

CONSUMERS UNION IS SPONSORED BY MORE THAN 70 EDUCATORS, AUTHORS, SOCIAL WORKERS AND SCIENTISTS. NAMES OF THESE SPONSORS ARE AVAILABLE ON REQUEST.

CONSUMERS UNION REPORTS IS PUBLISHED MONTHLY BY CONSUMERS UNION OF UNITED STATES, INC., NORTH BROADWAY, ALBANY, N. Y. OFFICES, 17 UNION SQ. W., NEW YORK CITY (ADDRESS ALL CORRESPONDENCE TO THIS ADDRESS). NOTICE OF CHANGE OF ADDRESS SHOULD BE GIVEN IN ADVANCE (PLEASE INDICATE WHETHER \$3 or \$1 MEMBER AND ENCLOSE OLD ADDRESS). ENTERED AS SECOND-CLASS MATTER JUNE 1938 AT THE POST OFFICE, ALBANY, N. Y., UNDER THE ACT OF MARCH 3, 1879. COPYRIGHT 1939 BY CONSUMERS UNION OF UNITED STATES, INC.

Here's news!
Studebaker invades
lowest price field!

Announcing a New Car
for a New World

THE NEW STUDEBAKER CHAMPION

Safest, strongest car in the lowest price field!

Brilliant team made of Studebaker's Commanders and Presidents!

STUDEBAKER makes you-and every other discriminating motorist in America-get and drive the remarkable and Champion too... the most important car in the world!

Now, as here, the Champion, you can enjoy the prestige and satisfaction of owning a genuine Studebaker, without paying more than a lower price! You can't get the Champion on any 1939 list book, because that other leading treatment cost

over! You can drive a car up to a Champion in fact as well as its name... the best looking, best built car a small amount of money ever bought!

There is a lower price for this other fine car, but it's not a Studebaker. It's a car that gives you more useful dollar's worth, because it's more practical. It's a car that gives you more useful dollar's worth, because it's more practical.

STUDEBAKER makes you-and every other discriminating motorist in America-get and drive the remarkable and Champion too... the most important car in the world!

Now, as here, the Champion, you can enjoy the prestige and satisfaction of owning a genuine Studebaker, without paying more than a lower price! You can't get the Champion on any 1939 list book, because that other leading treatment cost



Priced on a level with the three largest selling lowest price cars

\$660

See a Studebaker Champion in the 1939 list book, because that other leading treatment cost



CHAMPION'S CHALLENGE

In the best tradition of automobile advertising the price refers to one model and the illustration shows another. For \$660 you get a coupe. The sedan shown costs \$746

The Studebaker Champion

... moves into the low price field where most of the sales are made. Its provisional rating: "Best Buy" with overdrive, well up on the "Also Acceptable" list without

SINCE CU's last report on automobiles, Studebaker has introduced its *Champion* model in the price class of the *Ford*, *Chevrolet* and *Plymouth*. The tentative report on it here presented is based on technical examination and driving tests by CU's automotive consultants.

The *Champion* offers two outstanding advantages over other cars in the low-price field. Without losing essential strength and without giving a "tinny" ride, it weighs some 400 pounds less than the average of the "big three"; thus its engine can be—and is—smaller and more economical. Secondly, the *Champion*, alone in the low-price field, can be fitted with force-back overdrive, for approximately \$45 extra. The overdrive further increases economy, service life, oil mileage, and ease and quietness of operation. But even without the overdrive, no standard car, with the exception of the *Overland*, can compete with the *Champion* in gasoline mileage.

The body dimensions of the new car were admittedly based on those of the *Ford*. But the rear seat is narrower, and will not be comfortable for three adults. And, unfortunately, vision from the driver's seat is no better than in the average 1939 automobile. Doors have concealed hinges, are fitted with Hancock latches, and close without slamming.

The *Champion* is offered in standard and de luxe models, differing in upholstery material, accessory equipment (windshield wipers, arm rests, &c.), and in the fact that springs are covered in the de luxe model. So far as transportation value is concerned the de luxe equipment adds far less than the overdrive. Factory and New York delivered prices, with minimum equipment, follow:

	FACTORY (\$)	NEW YORK CITY (\$)
Standard 2-door sedan . .	700	749

Standard 4-door sedan . .	746	789
De Luxe 2-door sedan . .	760	809
De Luxe 4-door sedan . .	800	849

AN underwheel gearshift is standard equipment on all models. So is the type of independent front wheel suspension which has been used on *Studebakers* since 1935. This suspension gives very good steering control and roadability, together with riding quality that is better, over normally rough roads, than that of the *Ford* or *Chevrolet Master*. But it produces more "rocking-chair" motion than you will find in the *Plymouth* or *Chevrolet* knee-action models. All *Champions* also carry voltage regulation of electric output, Lockheed-type hydraulic brakes (a hill-holder is extra), a water thermostat, and a self-sealed water pump. A battery which cannot easily be overfilled is located under the hood.

With the standard gear ratio of 4.55 to 1, the *Champion* may offer unnecessary power and acceleration. Buyers who are interested in economical operation rather than in power, but are nevertheless unwilling to spend money for the overdrive, may obtain the car with the 4.10 to 1 ratio used on coupes. This ratio will be satisfactory unless the car is always heavily loaded or operated in hilly or mountainous country.

Design in the *Champion* is simple and most parts are easily accessible. Costs of repair should therefore be very reasonable. Except for the early-production cars, which had no more than the usual number of mechanical defects, the new *Studebaker Champion* standard model, equipped with overdrive, is provisionally rated a "Best Buy." Without the overdrive, it comes just ahead of *Hudson 112* in the ratings as published in *CU Reports* for February 1939. The de luxe model with overdrive rates ahead of *Plymouth De Luxe*; without overdrive, ahead of *Ford De Luxe*.

Prospective buyers, especially those who are accustomed to riding in larger and heavier cars, will do well to ride in the *Champion* and to note particularly its comparative riding quality, roominess and ease of steering. If possible, they should also test its behavior in strong cross winds. If you buy a *Champion* be sure that it is equipped with the latest carburetor, Carter number 453-S.

"The Public Be Damned"

So said old Commodore Vanderbilt and his slogan still applies to most railroad passenger equipment and service. At their best they are good; but only a small part of either has been brought up to date

SECOND ARTICLE IN A SERIES WRITTEN FOR CU by MORITZ HOWARD

AMERICANS have learned what modern travel can be like. For five years railroad advertisements and articles by railroad publicity departments have painted a gay picture of new streamlined, air-conditioned trains, equipped with reclining and revolving coach chairs and with bedrooms, roomettes, and chambrettes in place of berths. You can see pictures of the charming train hostesses. You can read about low-cost meals and mile-a-minute schedules. There is only one thing wrong with the picture. *Just try to catch a new-style train.*

The first high-speed, integrated, self-powered, hostess-staffed passenger train, a Union Pacific Streamliner, was completed early in 1934. For a year thereafter it was tested, photographed, exhibited, and admired—but not placed in service. The first modern train to carry paying passengers was the Burlington Zephyr, launched in November 1934.

Since then the railroads have spent some \$40,000,000 advertising their passenger service—enough to build 160 Zephyrs like the first. They have built, however, only 85 new-style trains—1 in 1934, 16 in 1935, 21 in 1936, 16 in 1937, and 31 in 1938.

What are your chances of riding on a modern train? An average of 1,375 passenger trains are en route at any hour of the day or night. Even if the 85 new-style trains operate 18 hours a day—a generous assumption—your chances of getting one for a given journey at a given time are 61 in 1,375, or 1 in 22. Of course, if you are traveling from New York to Chicago or (next Winter) to Florida, or from Chicago to Minneapolis, Denver, or the Coast, your chances are much better; on a high percentage of other runs your chances are worse; and many im-

portant routes still have no new-style service.

The carefully fostered myth that the railroads have introduced new passenger equipment deserves to be thoroughly exploded. Here are the facts, from Interstate Commerce Commission reports:

YEAR	NEW PASSENGER CARS PLACED IN OPERATION	OLD PASSENGER CARS PERMANENTLY RETIRED
1933	7	1,413
1934	247	1,664
1935	223	1,547
1936	146	616
1937	418	422
Total	1,041	5,662

The 1938 I.C.C. statistics are not yet available; but *Railway Age* figures indicate that in 1938 American railroads ordered 269 passenger-train cars (including express, baggage, mail cars, &c.), and during the first six months



MODERN COACH TRAVEL

... can be comfortable, as it is on this Chicago-Los Angeles all-coach express. Two such trains have just been put into service on the New York-Chicago run. But 95% of passenger equipment is obsolete

of 1939 an additional 135. Pullman figures are not included in the above.

Nor have the railroads been remodeling their old equipment at more than a snail's pace. In five years they have rebuilt 34 passenger cars out of more than 23,000 in service.¹ Air conditioning also lags. The first passenger car was air conditioned in 1930; after eight years, more than three-fifths of all railroad passenger equipment is still filled with the hot, stuffy, smelly air which travelers know so well.

Old locomotives are notoriously inefficient. Yet of the 7,500 steam locomotives in passenger service, 29% were built before 1910, and 59% before the war. Only 374, or 5%, have been built since 1929. Passenger locomotives other than steam are a negligible percentage of the total. Only 26 internal combustion locomotives and 290 electric locomotives were available for passenger service at the beginning of 1938.

WHY have railroad executives not re-equipped their passenger service? It is not because new equipment does not pay, nor is it because they cannot raise the money.

In all probability railroad executives are too busy to pay attention to their passenger equipment needs. They are too busy lobbying against such measures as the Wheeler-Truman Reorganization bill, designed to ensure that bankrupt railroads be soundly reorganized. They are busy demanding lower taxes. Above all, they are busy seeking to throttle competitive forms of transportation—especially waterways—by discriminatory legislation of various kinds.

Those railroad executives who can spare time for railroad operation at all, concentrate on freight problems. Passenger service has been the railroad's stepchild for more than a decade. The net railway operating loss on passenger service eats up almost a third of the net railway operating income on freight service. Yet the railroads have taken neither of the two

¹ According to railroad reports to the I.C.C. If more have in fact been rebuilt, they have been improperly accounted for to the I.C.C. The 23,000 total refers to strictly passenger cars; if baggage, express, mail cars, &c. (so-called "passenger-train cars") are included, the figure becomes 40,000, as stated in the *Reports* last month, and other figures change proportionately.

The first article in this series, in the July *Reports*, discussed the cost of railroad travel.

steps which together could save their passenger traffic—low rates and new equipment.

Banker influence over American railroads is a highly relevant factor in their failure to re-equip. In the old days, the equipment trust certificates through which purchases are financed were sold through the railroads' regular bankers, usually Kuhn, Loeb & Co. or J. P. Morgan & Co.; and the bankers exacted a heavy toll on the financing. Wall Street was happy.

The spreads taken by the bankers on equipment financing had become an open scandal when Interstate Commerce Commissioner Joseph B. Eastman, dissenting in 1924 from an I.C.C. order authorizing an equipment issue, declared:

An unhealthy situation exists with respect to the marketing of railroad securities. In the case of the more important railroads, this business is very largely monopolized by J. P. Morgan & Co., and Kuhn, Loeb & Co. So far as [equipment trust] securities are concerned, I am convinced that resort to competitive bidding is entirely practicable and would tend to bring about healthier financial conditions much less open to legitimate attack.

The Morgan and Kuhn, Loeb firms fought the proposed competitive bidding reform tooth and nail. The railroads denied that they were ruled by their bankers. In his next dissent, Commissioner Eastman declared:

The carriers resent the charge that their policies are dominated by Wall Street. They have here a chance to demonstrate their independence in a practical way [by selling equipment securities through competitive bidding].

The railroads did not accept the challenge. Openly or covertly under banker domination as so many of them were, they continued to pay tribute to the bankers every time they bought a box-car, locomotive, or passenger car. Commissioner Eastman dissented again and again—34 times in all—before the Commission finally decided to disapprove all equipment issues not sold competitively. Since this reform, bankers' profits on equipment issues have come way down. Wall Street no longer profits mightily on equipment financing. And the railroads now buy passenger equipment only in small doses.

Recently the railroads seem to have found a new way around the Commission's reform. They are beginning to buy an increasing part of what little equipment they do buy on the install-



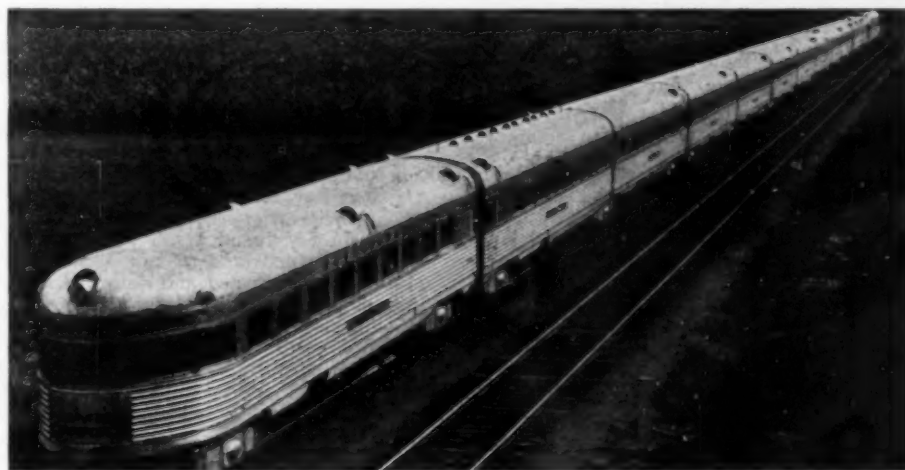
NEW YORK TO CHICAGO: 1905

This ancient Pennsylvania flyer (time: 18 hours) would look out of place in a present-day railroad advertisement. But it is more typical of present-day trains than the streamliners below



CHICAGO TO MINNEAPOLIS: 1934

This 3-car Burlington Zephyr went into service surrounded by official doubts that it could pay for itself. It has been succeeded by two sets of larger trains to take care of increased traffic



CHICAGO TO DENVER: 1939

This sleek express is one of a fleet of new-style trains put into service by the Burlington to handle the trade which the original 3-car Zephyr showed to be ready and waiting

ment plan. Interest and financing charges are thus disguised as part of the purchase price. The I.C.C. has no authority over such purchases because no security issue is involved, and the equipment manufacturer is free to re-finance the installment purchase with the bankers at any terms he or they choose, also without I.C.C. supervision.

Meanwhile, the railroads can get all the money they want for new equipment at low interest rates. The Missouri Pacific, abysmally bankrupt since 1933, recently offered equipment trust certificates bearing $2\frac{1}{4}\%$ interest; they were sold at more than par. Healthy railroads can get equipment money for as little as $\frac{3}{4}$ of 1%; a rate of more than 3% now is rare.

NEW equipment means speed and comfort for travelers; it also means profits for the railroads. The most recent example is the famous Twentieth Century Limited; officials claim a 60% increase in patronage following the installation of new equipment. Classic examples are the Hiawathas, operating between Minneapolis and Chicago. The Hiawathas carried a million passengers during their first 40 months in operation at a gross revenue of \$4,371,450 and a direct or out-of-pocket cost of \$1,442,015 for the period. Net revenue after deducting direct costs amounted to \$902,000 annually, a return of 108% per year on the investment. The Hiawathas pay for themselves every year, with 8% to spare. Nor are they unique. The five-train fleet of Union Pacific Streamliners (City of Portland, two Cities of Denver, two Cities of Los Angeles) cost \$1,500,000 a year to operate and took in \$3,000,000 last year.

The above figures include depreciation, but exclude costs of maintaining right-of-way, overhead, taxes, and miscellaneous system expenses. Even with these apportioned, however, the results are amazing. The Rock Island estimates that its new high-speed "Rockets" pay for themselves every three years.

Are there other routes which can support new-style equipment? There must be hundreds of them. The history of the Minneapolis-Chicago run is a case in point. Officials doubted the ability of the route to support six new-style trains, and termed the original installation "competitive madness." But the original twin Zephyrs, Hiawathas, and

"400's" proved inadequate from the day they went into service. They have all been transferred to secondary runs, and another, larger set of trains installed. Less than four years after the original installation, the second set of Hiawathas and Zephyrs has also proved inadequate; a third set, still larger, has now been placed in service. Meanwhile, the trains taken off the Minneapolis-Chicago run have proved too small to satisfy the demand even on secondary runs; they have either been enlarged or shifted to routes with still lighter traffic.

Every back-country route from county seat to county seat cannot, of course, support a de luxe Broadway Limited or City of Los Angeles. But almost any route which can support any service at all can support a new-style single-unit rail-motor car, complete with Diesel-Electric motors, baggage and express compartments, and reclining seats for 50 or more passengers, plus an observation section. The unit is air conditioned, cruises at 65 miles an hour, and is built to accelerate and stop rapidly in order to speed up schedules where local stops are frequent. It can be profitably operated on such light traffic routes as that from Neosho, Mo., to Kensett, Ark., or from Danville to Cypress, Ill. Traffic increases up to 20%, 30% or 40%,² and cost of operation is 23¢ a mile, as against 42¢ a mile for old-style service. Yet in the most recent year of record, exactly four rail-motor cars were installed.

EQUIPMENT is one part of the railroad story; equally important is service. Here is what service means:

The only thing that should be required of a traveler is a telephone call expressing his wishes. From that point on until the traveler has been lodged in hotel or residence, at his destination, the carrier should offer to discharge every function. . . . His ticket should be delivered, a cab furnished, his luggage collected and delivered, automobile livery service furnished at destination, or his own car transported for that purpose.

This is not the vision of an upper berth insomniac. It is the sober conclusion reached by the Federal Coordina-

² Best available evidence indicates that traffic increases resulting from new equipment installations are permanent; and that the additional traffic is not created at the expense of other trains, but comes primarily from people who formerly drove, took the bus, or stayed at home.

tor's Section of Transportation Service after prolonged study.

American railroads rightly boast of trains that enter and leave stations on time. The cost of time to the individual traveler is forgotten. Prompt schedules are maintained largely because stations have been built and routines established for the convenience of trains instead of passengers. Any traveler who has entered New York's Grand Central on one level, checked his suitcase on another, stood in line for his ticket, stood in line again to have it punched, walked another flight of stairs to his train and a block or more to his particular car might keep in mind that it is his exertions, not the railroad's, which should be credited with prompt schedules. It's easier for a train to enter or leave a station than for a passenger. As the report to the Coordinator puts it:

What does it profit a carrier to provide "perfect operation" and lose its business? Long climbs up stairs and down should be eliminated. . . . Grating or grilling upon platforms . . . plays havoc with women's high heels. Nor is there any need of requiring passengers to walk long distances . . . to traverse uncovered platforms . . . to mount a box which sometimes requires the agility of an equilibrist . . . to climb steep steps which seem designed to bruise his shins. . . .

Nor is it too late to improve. "Modernization of depots will not require reconstruction, as in the great majority of cases depots and terminals can be rearranged without excessive capital expenditure."

In reply, the railroads urged that if they made their depot facilities comfortable, "they would attract non-travelers!" The Passenger Traffic Report places an exclamation point after that one. Railroads have lost 93% of the travel business; they are almost afraid that comfortable stations will attract some of it back!

IT is probably too late to remedy altogether the bugbear of long-distance travel—the nuisance of changing trains. Chicago has been deliberately built so that you can't pass through it on a train. St. Louis also boasts that no passenger car ever passed through it from East to West. Says the passenger report:

About 4 million passengers traveling 2 billion miles and paying 53 million dollars . . . [in one year] were put to the annoyance, inconvenience, and discomfort of breaking their journeys,

CONSUMERS UNION Reports

changing cars (and frequently depots), at these gateways [Chicago, St. Louis, Memphis, New Orleans] alone. . . . These travelers alone were sufficient to fill 110,000 trains of the average load.

The cure is, of course, simple: inter-line trains or at least cars, routed for the passengers' convenience instead of for the railroad's convenience.

The report also has a trenchant word or two to say about tipping:

Tipping is more than a petty annoyance. . . . A trip on the railways reveals open palms extended at every step—taxi, "red cap," porter, waiter. Each of these performs a necessary and useful service and one for which they are entitled to stable compensation. . . .

The railroads made formal reply to this report. The reply "admits that tipping is an evil, but sees no way to eliminate it." Apparently the obvious way—paying a living wage to employees—never occurred to the railroads.

By far the greatest evil in passenger service today, however, is the infrequent scheduling of trains. Of the 233,000 miles of railroad in actual use, 58,000 miles, or about a quarter, have no passenger service. Over tracks actually operated in passenger service, an average of 3.25 trains pass each way every 24 hours. Schedules have been curtailed more than 25% since 1929.

Effective train frequency is further lessened by an astounding overlapping of service. Out of 90,000,000 limited-train miles per year, the Passenger Traffic Report found that one-third duplicated a second third; only a third of the total did not pull out of one city and into another side by side with a competing train. Effective train schedules could have been increased 33⅓% simply by staggering departure times.

WHAT'S wrong with the railroads? The answer can be summed up in an almost infinite series, beginning with coach rates in excess of a cent a mile, Pullman accommodations in excess of hotel rates, obsolete equipment, inadequate service, inconvenient stations, infrequent schedules, tipping, and on and on. The railroads themselves confessed their sins most dramatically when they informed the Federal Coordinator that many railroad employees preferred to drive their own cars even though they were entitled to ride free on trains. With the exception of a scattering of new-style trains, railroad equipment and service have fallen so low that rail travel is even difficult to give away!

August, 1939



CU's New Laboratory

... will be ready for use by the end of this month

LAST January 1st CU moved. The general reason was to get quarters in which CU's staff could more efficiently handle the growing work of servicing CU's growing membership. A major specific reason was to get facilities for a new and expanded laboratory which the old quarters did not provide.

In a rebuilt and enlarged pent-house directly above CU's top-floor offices, work on the new laboratory is this month nearing completion. The heavy construction work is finished; some of the equipment has already been moved in; by the end of the month it will all be installed and in use. The architectural rendering above shows, in an architectural renderer's way, how things will look.

Largest of the rooms is for the chemical testing; off to the left is the bacteriological laboratory; above it is a storeroom; and above that, in the upper left-hand corner of the drawing, is the photographic dark-room. To the right of the chemical

section is the laboratory for electrical and mechanical work; next to that, in the lower right-hand corner of the drawing, is the textile laboratory; and above that another storeroom. Total floor space occupied is over 1,200 square feet.

It was two years ago that CU's laboratory fund was set up and members invited to contribute to it. But the rapid growth of CU and the consequent need for new quarters resulted in delay in construction.

As members know, the larger part of CU's product testing has always been done by CU's consultants—more than 200 of them—in the laboratories of universities and colleges, government agencies, and private testing organizations. The invaluable work of these consultants will continue. But the new laboratory will allow more testing than ever before to be handled directly by CU, will consequently contribute to the expansion of the technical job that CU does for its 85,000 members.



A typical "Seamprufe" fabric of beauty and durability. Retains its fine appearance after hard wear and frequent washings. Woven of tested long-wearing Rayon yarns combined with Pure Dye Silk.

**WITH THE
10 STAR
"SEAMPURFE"
GUARANTEE**

- ★ "SHOULDER-EZE"
Pat. No. 2,011,792
ADJUSTABLE
STRAPS
- ★ FIT-PRUFE
- ★ SHRINK-PRUFE
- ★ VALUE-PRUFE
- ★ STYLE-PRUFE
- ★ KLING-PRUFE
- ★ ACTION-PRUFE
SEAMPURFE
SEAMS™
- ★ BULK-PRUFE
- ★ SAG-PRUFE
- ★ RIP-PRUFE

TYPICAL

Most slip labels read more or less like this one
—strong on fancy words and short on meaning

FAIRVALUE SLIP

Bust: 33" Style No. (for reordering):
Length: 42" 6017—Four Gore Bias Cut

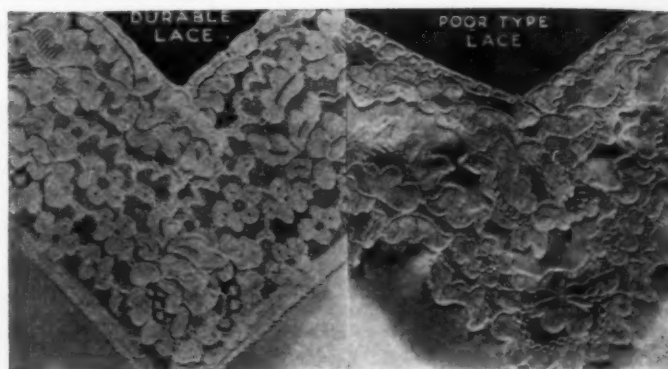
**MADE OF SILK (WARPI) AND BEMBERG
RAYON (FILLING) CREPE, WITH**

- ★ A minimum tensile strength of 64 lbs. in the warp and 41 lbs. in the filling.
- ★ A minimum seam strength of 37 lbs. in the body and 34 lbs. in the bust.
- ★ A minimum yarn slippage resistance of 25 lbs.
- ★ A maximum shrinkage of 4% in length and 1% in width.

**FAIRVALUE SLIP CO.
Dreamland, N. Y.**

IDEAL

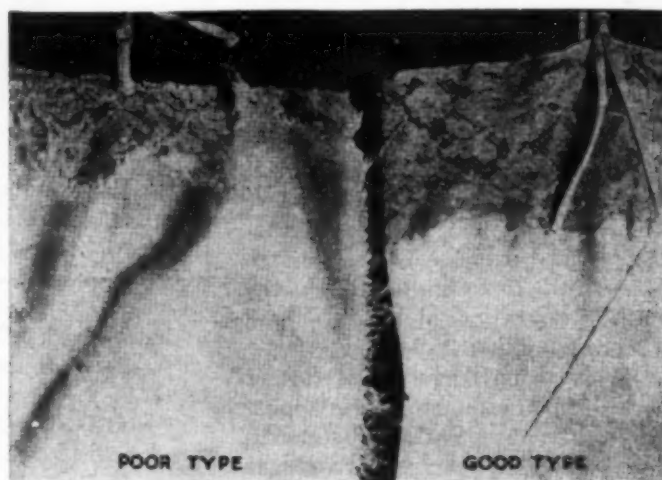
This label was devised by CU's textile experts to show what a really informative label should tell. Data used are those determined by tests of the slip whose actual label is shown above



PICTURES FROM CONSUMERS' GUIDE

LACE TRIMMING

Examine it to see whether there are any puckers or weak spots. So far as possible lace should be uniform in thickness



SHOULDER STRAPS

... should always be attached to the fabric and not to the trim alone. Remember that if straps must be appreciably shortened or lengthened the fit of the slip may be destroyed



YARN SLIPPAGE

Stretch the slip gently; if yarns slip or shift easily the fabric will blister and wear out quickly. Well-balanced construction helps avoid such slippage

Women's Slips

... are among the few staples in the female wardrobe. And fit and durability rank as more important than style and appearance. Herewith some buying guides and ratings of 60 slips

A SLIP is a comparatively staple item in any woman's wardrobe. It varies from season to season in respect to length and to cut, and these variations faithfully follow changes of style in woman's outer garments. But slips in their own right are fairly free from dictates of fashion and vagaries of taste.

Generally, year in, year out, women look for the best fitted and most durable slip within the range of what they have to spend. And most women apparently regard attractive appearance and convenience in laundering as secondary considerations.

There's only one way to be sure of getting a slip that fits. Try it on—even if you have to try it on over your dress. This is particularly important if you have had no previous experience with the brand, and worth doing in any case, even for the woman of average proportions. For many brands vary widely from the marked size. (Don't be discouraged by packaged slips prominently displayed in some stores—many of these stores carry an extra line of slips for fitting purposes. If you insist on your fitting, you'll get it.) Each of the 60 samples covered in CU's tests was examined for proper proportions and correct size marking.

UNDER the general heading of durability there are several items to consider. Will the slip shrink? Is the dye colorfast? Is the lace strong and even? Is it firmly attached, as it should be, with no raw edges showing?

All these points, and fiber content as well, were given serious consideration when CU rated slips for durability. But comparative durability was determined by the slips' relative tensile strength (bursting strength for knits), seam strength, yarn slippage and strap strength.

Tensile strength is a measure of the resistance of a fabric to breakage.

And it is an important measure. More important, in slip fabrics, is the tendency of the yarns to shift out of position without actually breaking. This tendency is called yarn slippage; it produces the familiar blistered appearance, prepares the way for actual breakage.

Both literally and figuratively, silk and rayon yarns are slippery customers in this respect—they are particularly likely to slip unless the manufacturer has used special means to hold them firmly in place. Well-balanced construction helps avoid such slippage; so does a finishing process which will survive launderings. In CU's yarn slippage tests—which were made on laundered samples—a six-pound resistance to slippage was considered a minimum for satisfactory wear.

Look for firm seams sewn with tight lock stitches about 1/16 inch long. Straps should be strongly attached, always to the fabric and not to the trim alone. The best straps are adjustable and contain a section of elastic, but don't depend on adjustable straps to correct the length of the slip. If, for any reason, straps must be appreciably shortened or lengthened, the fit of the slip may be destroyed.

Knit slips are notoriously apt to shrink, and many of the woven slips tested were also unsatisfactory on this count. Sometimes the shrunk fabrics can be stretched somewhat; but at best, the result of this process is a form-fitting slip.

Light-colored slips, unlike women's outerwear in the same shades, do not commonly fade. Only one slip tested by CU changed color in laundering—from a tea rose to a distinct pink (no dark slips were tested).

Fabrics

THE silk fiber is inherently a better fiber than rayon. It is strong, elastic, and retains its strength when

Little Lessons In Monopoly

THE attention of Assistant Attorney General Thurman Arnold, in charge of antitrust law violations, is respectfully called to the following New York Times item of July 22:

Visitors to the office of Col. Harry Price, sales manager of the Celanese Corporation of America, were greeted yesterday with a sign, neatly painted in red and reading simply, "No Yarn". . . .

The incident served to point up the shortage of acetate yarns that has occurred throughout the rayon industry, causing concern among weavers and other consumers who have been unable to meet the demand for fabrics because tight yarn supplies are holding down their own production. There has been some criticism of the fact that acetate output was curtailed early in the Spring, but this has been answered by the assertion that fabric prices would not have been as strong as they are now if yarn supplies had been too freely available.

For the benefit of the uninitiated, it should be explained that when the Times says "tight yarn supplies," it means "yarn supplies inadequate to meet the demand." By "strong" prices, of course, it means high prices. The Celanese Corp., it should be further explained, is one of the very large units in the rayon industry, directly controlling the Celluloid Corp. and the American Cellulose & Chemical Mfg. Co.

Celanese will sell no yarn at all during August and September; but it is not worried: the less goods you permit to reach the consumer, the higher your profit.

wet. However, good fabrics can be made of rayon, or better, rayon in combination with silk.

Although CU's tests revealed no consistent qualitative difference among fibers, experience has shown that weighted silk weakens rapidly in use, particularly in the presence of perspiration, and is a questionable buy at any price. White silk turns yellow long before its service is over, and cannot be satisfactorily bleached, because the more effective bleaches, such as the chlorine type, attack the silk. White rayon, on the other hand, stays white.



IT'S THE SAME SLIP

But knitted slips may shrink as much as 10% in one washing

The cheapest rayon (and the type most commonly used in slips) is viscose, which is frequently made into very satisfactory fabrics. Acetate rayon also is serviceable if handled properly—that is, if it is ironed with a cool iron, and protected from certain solvents such as those contained in nail polish removers. Cuprammonium rayons (Bemberg, for example), which in some ways closely resemble silk, are used to less extent, and usually in combination with silk.

The knitted slip is not a high style garment, but it has its solid qualities, and for women who are interested mainly in serviceability it is a good buy. Chief among its advantages is ease of laundering; it requires no ironing and is therefore a distinct convenience for the woman who has limited time for household tasks. Moreover, seams in the knit slips are generally good, and fabric slippage is impossible.

On the other hand, all knit fabrics tend to shrink considerably because of the relative openness of their weave, and shrinkage may be excessive because many knit fabrics are stretched when the slip is cut. Knits will also lose shape if they are dried carelessly. They must be hung evenly and smoothed to their proper shape while wet. (In any case, the poorly cut variety will sag after a few launderings.) Since poorly constructed plain knits may run, CU does not consider the plain knit construction acceptable.

Cut

THE basic cuts of woven slips are three—straight, 2-panel bias, and 4-gore bias. The first variety is cut on the straight of the goods, and since it cannot give to conform to the figure, it is particularly important that it be well fitted. Slips made of 2-panel bias-cut material have better elasticity and fit better, but tend to twist and ride up. Four-gore slips, most satisfactory of the three types, are made of sections of bias-cut material arranged with the direction of the bias alternating around the slip. They fit well and do not ride up.

Labels and Prices

SLIP labeling has improved somewhat. In most cases it is now in accordance with Federal Trade Commission rulings to the effect that rayon content and weighting of silks must be disclosed on the labels and that the term “preshrunk” must not be used unless qualified by a statement of actual residual shrinkage—that is, the shrinking which will occur in the first few washings. But fiber content and size are still, as a rule, the only points on which present-day slip labels actually inform the consumer. Most of the remaining label information can generally be discarded as worthless and even misleading, designed to fascinate the purchaser and distract her attention from the garment itself. Phrases such as “special quality silk,” “scientifically molded,” “pretested,” “unconditionally guaranteed,” and

“standard proof seams” are apt to be pure bunk.

Groups representing manufacturers insist that the consumer does not want labels such as the one CU has devised (see cut). Admittedly it is a substitute for simple grade-labeling, and admittedly it may tend to confuse some buyers—largely because the consumer has had no experience with such labels on slips. Given them, she could at least make comparisons and build up her knowledge of fabrics and constructions. Many sheet labels give information about tensile strength, thread count, and weight; and so far as we know, they have not aroused the indignation of the consumer. Informative labels, however technical, must hold the fort until manufacturers see fit to standardize their products more than they do now.

Price, in women's slips as with so many other products, is a generally unreliable indication of quality. However, in a negative way, it sometimes serves as a guide. CU found that when the regular price of a woven slip fell below \$1.50, quality had been sacrificed. On the other hand, the same poor qualities may be encountered in a \$3.95 as in a \$1.95 slip. Handmade products generally cost more than the machine-made variety and are usually not as serviceable. Seams and trimming are usually weak, and particularly in low-priced imported garments, fabric is apt to be poor.

Ratings

WHEN work on this report was started, several slips from each manufacturer were tested with a view to rating slips according to manufacturers' lines.¹ But test results showed that with one exception—*Barbizon*, which rated high—no line could be said to be of uniform quality. Certain manufacturers turn out generally poor products, but these are found in a low and narrow price range.

In the ratings below, slips marked with an asterisk were originally smaller than their marked sizes; in addition, they shrank in washing. These models will therefore be particularly poor fits after washing.

(Ratings begin on page 12)

¹ Not the same as brand names. Some firms manufacture several brands.

Technical Details of Woven Slips

BRAND	PRICE (\$)	FIBER CONTENT	TENSILE STRENGTH		YARN SLIPPAGE	MINIMUM SEAM STRENGTH		SHRINKAGE (%)		MINIMUM STRAP STRENGTH	CON-STRUCTION	FIT
			Warp	Filling		Main	Bust	Warp	Filling			
High Quality												
Slim Youth J7.....	1.59	Silk, rayon	94	40	30 ¹	51	25	2.5	1.0	19 ^{2,3}	Good	Good
Seamprufe Satin La Rue....	2.00	Silk, rayon	98	45	25 ¹	51	30	2.0	2.0	11 ^{2,3}	Good	Good
Barbizon Shortmore.....	1.65	Rayon	57	65	40 ¹	41	38	5.0	0.0	15 ³	Good	Good
Colony Club Thrillmode.....	2.95	Silk	117	51	24	75	42	4.0	2.0	20 ³	Good	Good
Princess Durelle.....	1.85	Silk, rayon	89	43	25 ¹	65	24	3.0	3.0	17 ^{2,3}	Good	Good
Ro Jene.....	1.85	Silk, rayon	49	30	25 ¹	45	23	2.0	2.0	13	Good	Good
Seamprufe Crepe Laurette ..	1.98	Silk, rayon	64	41	25 ¹	37	34	4.0	1.0	16	Good	Good
Barbizon Dress-Mate.....	2.95	Silk	135	66	14	36	65	2.0	1.0	14 ³	Good	Good
Barbizon Bryn Mode.....	2.95	Silk	131	61	16	75	27	4.0	3.0	13 ³	Good	Good
Good Quality												
Venusform.....	1.00	Rayon	54	58	30 ¹	44	41	5.0	1.0	⁴	Fair	Fair
Kayser Crepe Satesa.....	1.95	Silk, rayon	70	41	30 ¹	52	32	6.0	3.0	17 ³	Good	Fair
Loomcraft Loomray.....	.88	Rayon	51	50	25	31	..	5.5	0.0	⁴	Good	Good
Trillco.....	1.98	Silk, rayon	98	40	25 ¹	40	34	2.5	3.5	12	Good	Fair
Superfit Debutante.....	1.69	Rayon	53	48	32	41	28	4.5	1.0	10 ³	Fair	Good
Margo.....	1.29	Rayon	57	35	25 ¹	26	15	1.5	0.5	13 ³	Fair	Good
Valsheen New Super.....	1.69	Rayon	52	22	30 ¹	33	13	1.5	0.0	15 ³	Good	Fair
Yolande.....	2.95	Silk	89	36	23	26	..	4.0	2.5	10	Good	Good
Loomcraft Krepetone.....	1.19	Rayon	51	60	12	43	..	4.0	-1.0 ⁵	⁴	Fair	Fair
Rhythm Swing.....	1.85	Silk, rayon	52	32	20	50	18	4.0	2.0	13 ^{2,3}	Good	Fair
Fruit of the Loom Standard..	1.00	Rayon	58	36	25 ¹	32	10	2.0	2.5	10 ³	Good	Good
Fruit of the Loom Standard..	1.09	Rayon	52	54	11	51	24	4.5	-1.0 ⁵	13 ³	Good	Good
Kayser.....	1.09	Rayon	45	59	9	43	20	2.0	-1.0 ⁵	15 ³	Good	Good
Barbizon Shelby.....	2.25	Silk	88	39	12	75	19	4.0	2.0	15 ³	Good	Good
Kayser Twin Side.....	1.69	Rayon	59	32	15 ¹	37	16	1.5	0.0	12 ^{2,3}	Good	Good
Miss Swank.....	2.95	Silk	78	36	11	32	22	3.5	2.0	19 ³	Good	Good
Trillium.....	1.98	Silk	69	45	15	50	19	5.0	2.0	7 ³	Good	Good
Fruit of the Loom.....	.99	Rayon	44	45	12	45	11	3.5	0.0	15 ³	Good	Good
Yolande.....	3.95	Silk	95	36	8	30	..	3.0	2.5	5	Fair	Good
Not Acceptable												
Loomcraft Loomsuede.....	1.00	Rayon	51	61	30	40	..	6.0	1.5	⁴	Good	Poor
Margo.....	1.59	Rayon	56	51	30 ¹	26	26	6.0	2.0	15 ³	Good	Poor
Margo Seraswish.....	1.00	Rayon	107	43	30 ¹	25	25	5.0	3.0	18 ³	Fair	Poor
Loomcraft Magic Panel.....	1.00	Rayon	51	62	25	30	28	5.5	1.0	8 ³	Good	Poor
Joan Belmont.....	1.69	Rayon	66	36	20 ¹	21	26	1.5	1.5	7	Poor	Good
Premiere.....	.99	Rayon	41	41	30 ¹	37	17	3.0	0.0	9	Poor	Good
Satin Secrete.....	1.19	Silk-weighted 35% ⁶	89	36	11	70	19	4.0	6.0	20 ³	Good	Poor
Loomcraft Kustom Fit.....	1.00	Rayon	51	50	13	3	..	5.0	0.0	16 ³	Fair	Poor
Loomcraft Taffaswish.....	1.19	Rayon	88	52	18	26	17	6.0	0.0	7 ³	Poor	Poor
Seamprufe Crepe La Rue....	1.98	Silk-weighted 25% ⁶	55	38	11	35	18	3.5	2.5	12 ^{2,3}	Fair	Good
Princess Durelle.....	1.85	Silk-weighted 35% ⁶	59	30	11	46	18	4.0	2.0	12 ^{2,3}	Good	Good
Trillco.....	1.85	Silk-weighted 25% ⁶	49	28	10	40	11	4.0	2.0	16 ³	Good	Good
Slim Youth.....	2.95	Silk	126	44	4	53	15	3.5	2.0	12 ^{2,3}	Good	Good
Venusform.....	.89	Rayon	83	36	7	41	15	6.0	1.5	21 ³	Fair	Poor
Satin Secrete.....	1.98	Silk-weighted 35% ⁶	79	31	12	28	12	2.0	4.0	9 ³	Good	Good
Trillium.....	1.98	Silk	105	39	6	45	9	3.0	6.0	16 ³	Good	Poor
Rhythm.....	1.85	Silk	105	39	5	53	10	4.0	2.0	12 ^{2,3}	Good	Good
Miss Swank.....	3.95	Silk	149	46	9	15	18	4.0	2.5	5 ³	Poor	Fair
Syl-O-Slip.....	1.19	Rayon	43	32	5	18	19	0.0	1.0	7 ³	Poor	Good
Fruit of the Loom Standard..	1.00	Rayon	59	31	7	24	8	1.0	0.0	10 ³	Fair	Good
Twin Weaves Classic.....	1.95	Silk	92	34	4	67	10	4.0	2.5	10 ³	Fair	Good
Kayser Twin Side.....	1.00	Rayon	38	27	9	25	6	5.0	1.0	11 ^{2,3}	Good	Good

¹ Breaks without slipping. ² Elastic insert in strap. ³ Adjustable straps. ⁴ No separate straps. ⁵ Indicates stretch.

⁶ The figure given is the percentage of metallic salts (usually tin) found in the material. The FTC has ruled that light-colored silks containing more than 10% of weighted materials must be designated as weighted silk, and the amount of weighting disclosed.

Woven Slips

High Quality

Slim Youth Style 17 (Addison Underwear Co., NYC). \$1.59. Silk and rayon satin. Bias cut. Highest quality of those tested.

Seamprufe Satin LaRue² (Aronson-Caplin Co., NYC). \$2. Silk and rayon satin. 4-gore. Bias cut.

Barbizon Shortmore³ (Garfinkel & Ritter, NYC). \$1.65. Longer sizes of same slip sold as *Rite-more* and *Longmore*. Viscose rayon crepe. Bias cut.

Colony Club Thrillmode (Holland-Hessol Co., NYC). \$2.95. Silk satin. Bias cut.

Princess Durelle (Her Majesty Underwear Co., NYC). \$1.85. Sold by John Wanamaker under brand name *Adele*. Silk and Bemberg rayon satin. 4-gore. Bias cut.

Ro Jene (Roth Silk Undergarment Co., NYC). \$1.85. Silk and rayon crepe. Bias cut. Lace-trimmed top and straps.

Seamprufe Crepe Laurette². \$1.98. Silk and Bemberg rayon crepe. 4-gore. Bias cut. Fancy camisole top.

Barbizon Dress-Mate³. \$2.95. Silk satin. Straight cut.

Barbizon Bryn Mode³. \$2.95. Silk satin. 4-gore. Bias cut.

Good Quality

(In order of decreasing quality score)

Venusform (Venus Lingerie Co., NYC). \$1. Viscose rayon crepe. 4-gore. Bias cut. Labeled "pre-shrunk."

Kayser Crepe Satesa (Julius Kayser & Co., NYC). \$1.95. Bemberg rayon and silk. 4-gore. Bias cut.

Loomcraft Loomray (I. Schneier-son & Sons, NYC). 88¢ (clearance price). Viscose rayon taffeta. Straight cut. Lace-trimmed cami-

² See "The Docket." Aronson-Caplin slips covered in this test were correctly labeled as to fiber content, but the labels, one of which is illustrated, need a dose of clarity.

³ *Barbizon* slips are available from Cooperative Distributors, 114 East 16 St., NYC, at the above prices postpaid to any part of the United States.

sole top. Coarse but strong fabric. Considering price, a good buy.

Trillco (Tailored Silk Undergarment Co., NYC). \$1.98. Bemberg rayon and silk satin. Bias cut. Lace-trimmed bodice and hem. Lace straps.

Superfit Debutante (Superior Petticoat Co., NYC). \$1.69. Acetate rayon and viscose rayon crepe. Bias cut. Embroidered bodice.

Margo (Berkshire Undergarment Mfg. Corp., NYC). \$1.29. Acetate rayon taffeta. Bias cut.

Valsheen, New Super (Valmor Undergarment Co., NYC). \$1.69. Acetate rayon satin. 4-gore. Bias cut.

Yolande (Lande & Miskend Co., NYC). \$2.95. Handmade. Silk crepe. Bias cut. Color changes from tea rose to pink on washing.

Loomcraft Krepetone. \$1.19. Viscose rayon crepe with satin stripe. Straight cut. Built-up shoulder.

Rhythm Swing (Patricia Petticoat Co., NYC). \$1.85. Rayon and silk crepe. 4-gore. Bias cut. Lace top.

Fruit of the Loom Standard (Fruit of the Loom, Inc., NYC). \$1. Printed acetate rayon satin. 4-gore. Bias cut. Considering price, a good buy.

Fruit of the Loom Standard. \$1.09. Viscose rayon. "Dawndu" crepe. 4-gore. Bias cut. Considering price, a good buy.

Kayser. \$1.09. Viscose rayon diamond-patterned weave crepe. Bias cut.

Barbizon Shelby³. \$2.25. Silk crepe. Bias cut.

Kayser Twin Side. \$1.69. Acetate rayon taffeta. Bias cut. Garment is reversible. All seams finished with raw edge concealed. Excellent construction. Would be "Best Buy" in better fabric.

Miss Swank (Miss Swank, Inc., NYC). \$2.95. Silk crepe. 4-gore. Main panels bias cut. Side panels, straight cut.

Trillium (Tailored Silk Undergarment Co.). \$1.98. Silk crepe. Bias cut. Lace-trimmed.

Fruit of the Loom. 99¢. Viscose rayon "Dawndu" crepe. "Tailored by Stancorp." 4-gore. Bias cut.

Yolande. \$3.95. Silk satin. Handmade. Bias cut. Lace-trimmed.

Not Acceptable

Loomcraft Loomsuede. \$1. Viscose rayon taffeta. Straight cut. Built-up shoulders. Good quality except for high shrinkage.

Margo. \$1.59. Acetate and viscose rayon crepe. 4-gore. Bias cut. Shrinkage high.

***Margo Seraswish**. \$1. Viscose rayon taffeta. Bias cut. Shrinkage high.

***Loomcraft Magic Panel**. \$1. Viscose rayon crepe. 4-panel. Bias cut. Shrinkage high. Poor fit after washing.

Joan Belmont (M. C. Shrank Co.). \$1.69. "Joan Belmont" is Bloomingdale's name. Acetate rayon satin. Straight cut. Tucked bodice camisole top trimmed with lace. Low yarn slippage at tucks. Tucks chain-stitched. Warp of fabric runs crosswise of garment. Generally poor construction.

Premiere (Premiere Slip Corp.). 99¢. Viscose rayon crepe. Bias cut. Camisole top trimmed with lace. Poor quality lace. Straps attached to lace only. Low strap strength.

***Satin Secreté**. \$1.19. Weighted silk satin. Bias cut. Label does not disclose weighting. Brand label marked "Genuine Silk." Store tag marked "Silk." Shrinkage high.

***Loomcraft Kustom Fit**. \$1. Viscose rayon satin-stripe crepe. Straight cut. Bodice top. Shrinkage high.

***Loomcraft Taffaswish**. \$1.19. Viscose rayon taffeta. Bias cut. shrinkage high.

Seamprufe Crepe La Rue². \$1.98. Weighted silk crepe. Bias cut. Lace-trimmed. Straps anchored in lace only.

Princess Durelle. \$1.85. Weighted silk crepe. 4-gore. Bias cut. Lace trim.

Trillco. \$1.85. Weighted silk crepe. Label does not disclose percentage of weighting. 4-gore. Bias cut. Embroidery trim.

Slim Youth Style 404. \$2.95. Silk satin. Bias cut. Lace trimming. Yarn slippage, 4 lbs.

***Venusform**. 89¢. Viscose rayon taffeta. Bias cut. Size 36. Bust measurement 35. Shrinkage high.

Satin Secreté (Brown & Co.) \$1.98. Garment had two labels sewn to inside top of back. One stated: "Satin Secreté—Genuine Silk"; the other: "Rayon and Silk." Garment is weighted silk satin. Bias cut.

Trillium. \$1.98. Silk satin. Bias cut. Yarn slippage, 6 lbs. Shrinkage high.

Rhythm (Patricia Petticoat Co.). \$1.85. Silk satin. (Bias cut. Yarn slippage, 5 lbs.

Miss Swank. \$3.95. Silk satin. 4-panel. Bias cut. Side panels straight cut. Heavily trimmed with lace. Construction poor. Shrinkage rather high.

Syl-O-Slip (M. C. Shrank Co.). \$1.19. Viscose rayon crepe. Straight cut. Yarn slippage, 5 lbs. Poor construction.

Fruit of the Loom Standard. \$1. Acetate rayon satin. 4-gore. Bias cut. One of lowest quality tested. Low seam strength. Low yarn slippage.

Twin Weaves Classic (Holland-Hessol Co.). \$1.95. Silk satin. Bias cut. Lace-trimmed. Yarn slippage, 4 lbs.

Kayser Twinside. \$1. Viscose rayon crepe. Bias cut. Reversible. Good construction. Very poor fabric. Low in tensile strength, seam strength, and yarn slippage.

Knit Slips

Best Buys

Vanity Fair Radia (Vanity Fair Silk Mills Co., NYC). \$2. Viscose rayon in runproof construction. Brassiere top.

Van Raalte VR-Tex (Van Raalte Co., NYC). \$1.95. Viscose rayon in runproof construction.

Also Acceptable

Munsingwear (Munsingwear, Inc., NYC). \$1. Not runproof, but more run-resistant than plain knit. High quality otherwise.

Van Raalte Stryps (Van Raalte Co.). \$1.85. Not runproof, but more run-resistant than plain knit. High quality otherwise.

Kayser No. 6312 (Julius Kayser & Co., NYC). \$1.65 (sale price).

Viscose rayon and silk in runproof construction. Shrinkage rather high.

Kayser No. 5012. \$2. Viscose rayon and silk in runproof construction. Shrinkage rather high.

Luxite Your Highness (Luxite Silk Products Co., NYC). \$1.95. Viscose rayon and silk in runproof construction. Shrinkage rather high.

Not Acceptable

***American Maid Trico-lingette** (American Maid). \$1.49. Acetate rayon in runproof construction.

Sircom Spun-lo (A. B. Sircom Co.). \$1. Plain knit, not runproof.

Luxite Spun-lo. \$1.09. Plain knit, not runproof.

The Docket

Notes on government actions against misleading advertising, false claims, dangerous products

THE following cases are selected from scores of actions taken monthly by the Federal Trade Commission and the Food & Drug Administration.

Unless otherwise stated, notices of judgment rendered under the Food and Drug Act refer to individual shipments only.

The Food & Drug Administration has seized:

Candy. The seizure consisted of 31 cartons, 43 boxes and 11 cases of candy, shipped from Chicago by the Curtiss Candy Co., manufacturers of *Baby Ruth*, *Butterfinger* and some fifty-odd varieties of nickel and penny candy. The shipments were found to be insect-infested and adulterated in that they consisted wholly or in part of a filthy vegetable substance; they

were ordered destroyed. Another seizure consisted of 36 cartons and 25 boxes of candy shipped in part by the Curtiss Co., in part by Loose-Wiles Co., and in part by Mars, Inc. These shipments were also insect-infested.

Jams and Preserves. Seventy-eight cases of apple butter, shipped by the Old Virginia Packing Co., contained rodent hairs, mites and insect fragments. The shipment was ordered destroyed. Fifteen cases of raspberry jam, shipped by the Sun Distributing Co., were misbranded. Although the product was labeled "Pure Raspberry Jam," apples had been substituted in part for raspberries. The F&DA found that the label tended to deceive and mislead the purchaser, and that the product was offered for sale under the name of another article. The product was turned over to a charitable institution. Thirty-nine cases of raspberry preserve, shipped by the Fresh Grown Preserve Corp. of Brooklyn, were ordered destroyed because they were deficient in fruit, contained an excessive amount of sugar and moisture, and were mixed in a manner whereby inferiority was concealed.

The Federal Trade Commission has taken action against:

Freezone. The Wyeth Chemical Co. has been ordered to cease representing that its product, *Freezone*, or similar products, will cure corns or callouses or prevent their formation or recurrence, and that it will promptly stop, or prevent the recurrence of, pain caused by corns. The company has also been ordered to cease repre-



BEST SELLING BRANDS

... of Curtiss Candy Co. F&DA agents found one Curtiss shipment "insect-infested"

senting that corns have roots, that the roots are removable by *Freezone*, or that an entire corn can be removed with the fingers after one application.

Women's Lingerie. The Aronson-Caplin Co., New York City (makers of *Seamprufe* slips reported on in this issue, page 12), is prohibited from using the term "pure dye" or other terms of similar meaning to designate products not composed wholly of unweighted silk, and from using the term "taffeta" or others of similar import to describe any product not made wholly of silk, unless the descriptive words are truthfully employed to designate type of weave, construction or finish. In that case such words are to be qualified by explanations.

The order also forbids the use of the word "acetate," or any other name indicative of a process of manufacturing rayon, to designate products made from rayon, unless the word "rayon" is used in immediate conjunction and in equally conspicuous type.

Correction— Buying Guide

THREE typographical errors in the 1939 *Buying Guide* have come to CU's attention. They affect only the full edition; all of them were caught before the limited edition, printed after the full, went to press.

In the section on toothbrushes the listing of "Also Acceptable" brands, which starts on page 100 and carries over to page 101, is headed "Not Acceptable—Cont'd" on the latter page. This heading should read "Also Acceptable—Cont'd." The brands which are rated further down on the page as "Not Acceptable" are correctly listed.

In the section on maple syrup (page 46) *Vermont Maid* was listed as costing 27¢ for 12 fluid ounces; the cost should have been given as 22¢.

In the section on electrical appliances (page 177) a reference pamphlet, "Safety for the Household," is listed as costing 15¢; the correct price is 25¢.

A member informs us that a second pamphlet mentioned in the electrical appliance section, "Electric Equipment for the Home—Its Care and Repair," is no longer in print.

We are further informed, by Western CU, that the \$1.50 size box of *House of Westmore* face powder, rated "Also Acceptable" in both editions of the *Buying Guide*, is not now being sold.

Faith in Advertising

... is declining, finds the Crowell Publishing Co., which views with alarm the consumer movement and engages in a campaign to lull it to sleep

IN THE Fall of 1937 the Crowell Publishing Co. first began to take its present lively interest in the consumer movement. That interest is natural. The Crowell Co. owns and operates a magazine chain which claims a circulation of "nearly 10,000,000—the largest magazine circulation in the world today." And the Crowell magazines—*Collier's*, *The American Magazine*, *The Country Home Magazine* and *The Woman's Home Companion*—depend for their existence upon advertising revenue.

Now, as Crowell and consumers alike know, advertising is effective only to the degree that it is believed. And one of the things consumer education teaches is that much of advertising as written and published cannot be believed; that advertising in general has made such a record for itself that it has forfeited any rights to be accepted blindly on faith. Consumer education teaches much more than this; but it is this which galls the advertisers and, hence, the publishers.

So it came to pass that the Crowell Co. set up its own "Consumer Division." And the Division shortly published a survey entitled "Advertising and The Consumer Movement." This was a fairly restrained "digest of a survey on consumer activities" in which, incidentally, Consumers Union was credited with a very flattering degree of influence. The basic conclusions were to the effect that the consumer movement had splendid possibilities, but that it was regrettably creating "in the minds of many women consumers an . . . unwholesome suspicion of . . . branded products."

Since 1937 the Consumer Division of the Crowell Co. has fought valiantly to quiet such unwholesome suspicions. In the words of *Business Week*, the Division was set up "to make business and the consumer friends again." Its "educational" department has supplied an impressive number of women and women's clubs with "study programs," pamphlets, advice and philosophy.

THE most recent consumer broadside of the Crowell Co. is an elaborate 25-page brochure, profusely illustrated, printed on the shiniest of paper and written, not for consumers at all, but for advertisers. It is a call to arms in which manufacturers, advertising agencies, and media owners are enlisted in a great crusade against "the increasing threat to confidence in advertising" offered by the consumer movement.

In the large gleaming pages of this publication advertisers can enjoy among other things a heart-to-heart talk with Anna Steese Richardson, Director (since retired) of Crowell's Consumer Division. Says Mrs. Richardson:

... The plain truth is that many people are losing confidence in the American manufacturer, retailer and advertiser. . . .

During these years I have traveled in every State of the Union . . . attended meetings held by every type of consumer group . . . and everywhere I have heard the same story—lack of faith in advertisers and advertising.

This attitude . . . has been planted in women's minds by clever propaganda which has permeated every corner of this country. . . .

The Crowell Publishing Co. has pioneered in combatting the . . . propaganda against advertising. We have distributed nearly a million pamphlets, received and answered 180,000 letters, addressed hundreds of meetings and conventions. . . .

But we have reached a point where even more vigorous methods are needed. . . . Who will undertake the big job?

On the very next page Thomas H. Beck, Crowell's president, says that he will, for one. "Crowell," says Mr. Beck, "will tell the truth about advertising to 10,000,000 families."

This pledge is followed by a sample. On subsequent pages Crowell presents reproductions of some full-page advertisements which have run or will run in the four Crowell magazines. All are written by Crowell for its readers. All, in Mr. Beck's words, chant "the social and economic benefits of advertising."

Noteworthy among the ringing

THE CROWELL PUBLISHING COMPANY

WELCH'S HOME CORPORATION
THE AMERICAN MAGAZINE
COLUMBIA THE NATIONAL VESSEL
THE COUNTRY HOME MAGAZINE

J. A. WELCH
Vice President
Consumer Division

December 29, 1939

Mr. J. C. Ellipetrick
Consumers Union
55 Madison Street
New York, New York

Dear Mr. Ellipetrick:

Please pardon this belated reply to your letter of December 23 which, by the way, I now carries the New York postmark of December 15.

We do not believe it is in our best interest to carry in Crowell magazine the copy you have submitted. We of course do not want you to consider this decision a reflection on your company in any way and we hope you will not consider it so.

Sincerely,
Lawrence

JAW:MD

CROWELL REGRETS

But do they?

sentiments in which the brochure abounds is Crowell's simple statement about these ads:

"We are confident they will develop in nearly ten million homes reached by Crowell Publications . . . a keener responsiveness to advertising."

In which words the great company offers at last most positive proof of its own faith in the efficacy of advertising. For, it appears, the whole elaborate brochure is, itself, an ad. Written with less finesse and more briefly it might read something like this:

"Place your advertisements in the Crowell Publications where they will be believed. The Crowell Co. offers, for your convenience, its Consumer Division, which quiets the doubts of restless consumers, creates faith in whatever you have to say. We have invested thousands of dollars teaching our readers to trust the ads. We guarantee a believing audience."

Even so, the brochure is more than an ad for the Crowell Publications and an admission of the basic falsity of Crowell's Consumer Division. It is also, as it says, a call to advertising to combat the consumer movement. And it is an expression of real concern at the growing strength and understanding of organized consumers. As such, it is both praise and challenge.

MORE challenge than praise is an editorial contributed last month by *Collier's*, big brother of the Crowell family, to give "keener responsiveness

to advertising" a special push among its own readers. *Collier's* disarmingly started out by saying that its remarks would have to be discounted because "we depend on advertising for most of our revenues." It then proceeded to list "a few truths that seem self-evident."

CU received numerous clippings of the editorial from members, most of whom seemed to find the "truths" not too self-evident. And one clipping came from a non-member, a gentleman who earns his living in the magazine publishing business, a most respectable citizen in *Collier's* own lights and never associated, to our knowledge, with any branch of the consumer movement. He said he thought we might be interested; and he penciled in a few comments on some of the "truths." For instance:

Collier's: "A business concern that hopes to survive cannot risk antagonizing the buying public by printing fraudulent or exaggerated advertising—which, like any other class of lie, will eventually out."

Respectable Citizen: (1) "But they do." (2) "Will it?"

Collier's: "The Federal Trade Commission has ample power (some people think too ample) to make a firm in interstate commerce stop making excessive or baseless claims for its products."

Respectable Citizen: "But do they?"

Collier's: "A surprising number of us common clucks, while we enjoy a handsomely gotten-up and well-written ad, can spot any lies or half-lies it may contain. . . ."

Respectable Citizen: "Can they?"

Collier's had better ponder those little comments. It might ponder them, for example, with reference to *Listerine*—an old and honorable *Collier's* advertiser which has gotten away with grossly exaggerated and fraudulent advertising for years. It is true that informed—i.e., "educated"—consumers can see through it, which makes a good case for consumer education. But if the "common clucks" can, why do *Listerine's* sales mount so handsomely? It is also true that the Federal Trade Commission is finally clamping down on one phase of *Listerine's* advertising—after two years or more of that advertising.

But any good CU member can tell *Collier's*, if *Collier's* really doesn't know, of the rate of speed at which the venerable FTC moves and of numerous dozens of questionably advertised products which escape its complaints and stipulations.

Collier's editorial does make one

point of some merit, and that is in reference to the "careful supervision" maintained by publications over the advertising they print. We're not overly impressed by the supervision as it affects commercial advertisers. But we know for a fact that it works well and smoothly when it comes to CU's advertising. As a case in point we give you Mr. Welch's letter up above. Maybe what he means is that a CU ad in the Crowell publications would interfere with Crowell readers' "responsiveness to advertising"—or advertisers' responsiveness to Crowell's salesmen.

If you'd like to get the bother of renewing over for a good long period to come; or, if you're new to Consumers Union and want to take out a long-term membership at a saving, fill in and send in the coupon below.



CONSUMERS UNION

17 Union Square West
New York City

I'd like to take advantage of your long-term rates.

☐ Renew my membership for years.

I enclose \$ (\$5 for two years, \$7 for three years)

☐ Enroll me as a new member for years.

I enclose \$ (\$5 for two years, \$7 for three years)

(Two- and three-year rates for the West Coast Edition—the national *Reports* plus the monthly West Coast Section—are \$6 and \$8.50.)

I agree to keep confidential all material sent to me which is so designated.

Name

Address

..... SCUP

CU MEMBERS PLEASE COPY

Dear CU:

I had no idea when I came here that I'd be conducting classes in Consumer Education. But I wasn't here a week, when there I was under a big shady tree with 25 listeners. . . . The Consumers Club is now a regular part of the Summer activities. . . . We've had three meetings to date and at least 100 people have for the first time become acquainted with CU. . . .

*—from a CU member
on vacation in Wisconsin*

CU wouldn't dare suggest that you start a consumer class at your Summer camp or resort. But since the member who wrote the note up above has already done it, we'll silently point to her example and trust that you will take a hint. . . .

Whether or not you run a class or hold a meeting —

Put CU on your agenda for the Summer.

Your friends will thank you for "Best Buys" in sunburn preventives, treatments for athlete's foot and poison ivy (and for lots of other things that you know as well as we do).

And CU will thank you for that "Best Buy" in Memberships —

Fifteen or more at reduced group rates (\$2 for the regular \$3 membership, 60c for the abridged \$1 membership)

Sign here.

CONSUMERS UNION

17 Union Square W., New York City

I'll try to start a group. Send group application blank, and circulars.

Name

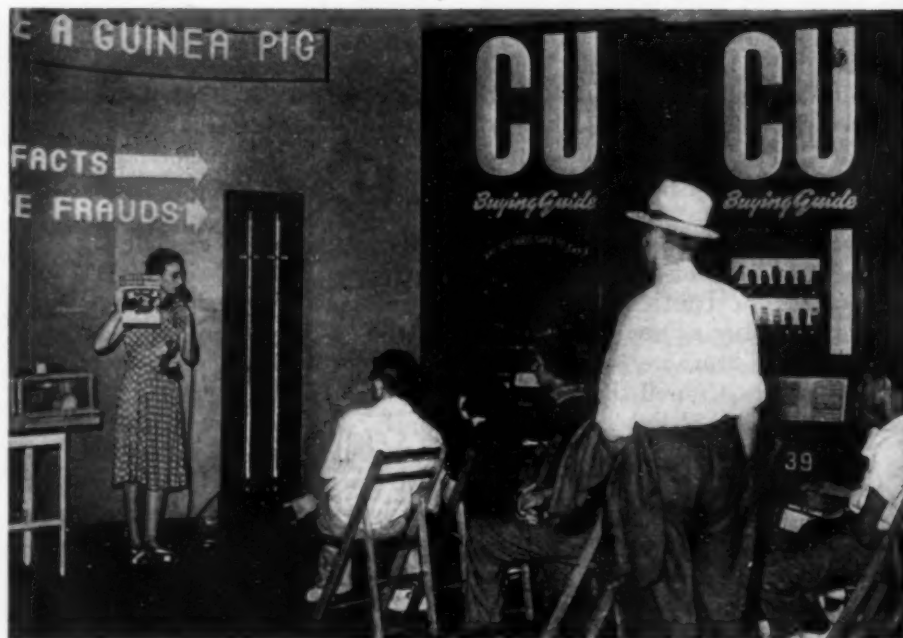
Address

Organization



Don't Be A Guinea Pig!

A quick look at CU's World's Fair exhibit, where crowds come to see the guinea pigs and learn how not to be one



The guinea pig above (Sylvia by name) is a star performer at CU's exhibit at the New York World's Fair. Just inside the entrance to the Consumers' Building, CU's exhibit draws throngs of Fair-goers every day. They look at the displays, listen to the speaker, ask questions. To date more than 3,000 have become members

ADVISORY BOARD

DR. WALTER C. ALVAREZ—Professor of Medicine, University of Minnesota, Mayo Foundation; Senior Consultant, Division of Medicine, Mayo Clinic; Editor, *American Journal of Digestive Diseases*.

DR. ANTON J. CARLSON—Chairman, Dep't of Physiology, University of Chicago; Past President, American Physiological Society; Author, "The Control of Hunger in Health and Disease."

DR. MARION B. SULZBERGER—Ass't Professor of Clinical Dermatology and Syphilology, New York Post-Graduate Medical School, Columbia University; Editor, *Journal of Investigative Dermatology*.

Consumers Union

Reports

MEDICAL SECTION

Dr. Harold Aaron
Special Medical Adviser

IN THIS SECTION

... CU members will find articles on medical news and opinion; authoritative medical discussion of foods, cosmetics and drugs; reports on questions of public health and health legislation in the United States.

Members of CU's Medical Advisory Board (listed on this page) are consulted on all matters of medicine reported on which lie within their fields. Consumers Union and its Special Medical Adviser are responsible for all expressions of opinion in regard to other questions considered.

The Medical Section appears regularly each month as a department of Consumers Union Reports.

Food Poisoning

... may have simple causes and dangerous effects. Herewith a discussion of some of the bacteria which make the trouble and of some precautions which may help you avoid it

by MORTON S. BISKIND, M.D.

DURING the last week in June more than 500 persons on New York's Staten Island, almost all of them school children, became ill after eating egg-salad sandwiches served to them at school. Almost simultaneously a similar outbreak occurred in one of Manhattan's large medical centers; 35 nurses and two doctors developed severe gastro-intestinal upsets soon after eating lunch.

Such incidents are not uncommon. They naturally receive publicity when a considerable number of persons are affected; hence it may appear that "food poisoning" occurs chiefly at banquets and picnics or in public institutions, restaurants and other places where large numbers of people partake of food from a single source. But individual cases of food poisoning occur constantly—most of them do not even appear in the vital statistics of our health departments.

What is food poisoning? Various toxic substances, such as the compounds of arsenic and lead used in insecticides, may, of course, contaminate food and cause illness. But this is not the kind of poisoning we are concerned with.

There are certain bacteria which, when they are permitted to grow in a suitable medium, produce soluble poisonous substances (toxins). Food prepared under insanitary conditions may be contaminated with some of these germs; if the food is kept for several hours or longer without proper refrigeration, these organisms multiply and leave their poison in the food.

Some of these toxins are not destroyed by heat, so that even if the food is subsequently cooked enough to kill the germs, it may still be poisonous. Moreover, some of the bacteria, in addition to producing their poison in the

food, also may directly infect the person eating it: thus still more of the toxic substance will be produced in his intestine.

Food poisoning is often incorrectly called "ptomaine poisoning"; in the vast majority, if not in all, cases this is a misnomer. Ptomaines are not found in ordinary foods, unless they are so decomposed as to be putrescent. And, of course, no one in his right mind would eat such "food." Actual "ptomaine poisoning" is rare if not altogether nonexistent; food poisoning caused by bacterial toxins, on the contrary, is all too common.

THE bacteria implicated in most cases of food poisoning are relatives of the typhoid bacillus and belong to what is known among bacteriologists as the colon-typhoid group. Fortunately, none of the other members of this group is as deadly as the typhoid organism. However, unlike this organism, which causes disease only in man, the bacteria that produce the most severe types of food poisoning also infect animals. Thus pigs, sheep, cattle, rabbits, guinea pigs, chickens and even canaries may serve as infecting agents for man. In addition, rats and mice are common carriers of bacteria of this group. Many cases of food poisoning have been traced to rodent dung which contaminated food or materials used in food.



FOOD COUNTER—FRONT VIEW

Enclosed in glass and refrigerated, food looks clean and is apt to be clean (see next page)

Technically the most virulent of the food poisoning organisms belong to the genus *Salmonella*. But occasionally other bacteria are implicated—certain strains of the widely found *Staphylococcus*, for example.

The germs do their deadliest work in foods containing sugars or starches, especially custards, cream puffs, cream pies, potato salads and similar materials, but milk, meat and fish and other foods are not infrequently involved. Foods in which bacteria can grow readily should be prepared with special caution, especially in warm weather, and should be kept in refrigerators if they are not eaten promptly. Ordinarily, the taste and smell of food infected with *Salmonella* or *Staphylococcus* germs are not altered appreciably.

Considering the lack of even the most rudimentary sanitary precautions in many food establishments, food poisoning would be much more common than it is were it not for the fortunate fact that conditions must be specially favorable for the contaminating bacteria to do their work. The germ must be of a virulent strain, the medium proper for its growth, the temperature favorable and the time at least a few hours.

If one grows virulent *Salmonella* or *Staphylococcus* germs in broth in a test tube, then filters out the bacteria and injects this bacteria-free solution into the vein of a rabbit, in an hour or two this rabbit will be a very sick animal. He will have all the symptoms of a human being with food poisoning (with one exception—rabbits cannot vomit). Breathing is labored, heart beats faster, temperature rises, and usually severe diarrhea occurs. Prostration and even death may follow although chances are that the rabbit will recover in a day or two.

In human beings nausea and vomiting usually occur within a few hours after eating the contaminated food. Pain in the abdomen, and diarrhea often—but not always—follow. Those who have had food poisoning do not soon forget the experience.

Though the rabbit can be infected with the live germs, it can *drink* germ-free filtrates containing the toxin with apparent impunity; the toxic substance does not pass

through the wall of the rabbit's intestine. Man is not so fortunate. Let him drink a sufficient quantity of such a filtrate and he may get very sick indeed.

Most actual food poisoning is probably a combination of poisoning and infection because both live germs and their toxic products are usually present.

How can food poisoning be avoided? Food handlers, first of all, must be taught the rudiments of hygiene, a subject in which the vast majority are sadly uninformed. And they must be taught to practice scrupulous cleanliness in the handling of food and of the utensils used for it; needless handling of food with fingers which are often of questionable cleanliness is all too common. Although most city health departments have rigid restrictions—in their code books—with regard to sanitation in food establishments, these rules are rarely enforced adequately. Food handlers who are carriers of *Salmonella* germs are, of course, especially dangerous. While it is not easy to detect all healthy carriers, persons suffering from an acute intestinal disturbance should certainly be forbidden to handle food; this precaution is all too often overlooked.

Flies and roaches provide an important source of the germs which cause food poisoning. Despite repeated publicity campaigns as to the role of these insects as carriers of disease, they are not only tolerated but, seemingly, actually invited in many places where food is prepared. Rats and mice, as already mentioned, spread *Salmonella* germs far and wide, and they, too, are frequently tolerated with surprising equanimity. Finally, food that may serve as a ready medium for the growth of bacteria must be kept refrigerated. Even a few hours in a warm room may be enough to permit production of dangerous quantities of toxin.

Another, but less common, form of poisoning is that caused by the botulinus bacillus ("botulism"). This germ is frequently present in the soil and often contaminates fresh fruits and vegetables. It cannot grow in the presence of air and it is ordinarily harmless. But in a sealed can or jar, it may grow readily and produce a deadly poison which causes paralysis (often fatal). The botulinus toxin develops in liquid canned goods that are not properly sterilized. In commercial practice it is now quite rare; most cases of botulism result from home canning¹ in which facilities for attaining a sufficiently high temperature for a sufficiently long time are often unavailable. The toxin is so dangerous that a mere taste of food which contains it is sufficient to cause serious poisoning.

Thorough cooking will weaken the botulinus poison, but this method should *never* be relied on in the home to render botulinus-infected foods safe.

During its growth the botulinus bacillus produces gas which will cause swelling of the ends of a tin can. If the food is packed in a glass jar, the gas will be emitted on loosening the cap. Botulinus-infected food usually has an easily detectable odor similar to that of rancid butter, but this is not always the case.

If you suspect the contents of a can or a jar, *discard it—don't taste it!* And don't feed it to animals.

¹For expert advice on home canning write for Farmers' Bulletin 1762 and 1800; available from Sup't of Documents, Washington, D. C. 5¢ each.—Ed.



FOOD COUNTER—REAR VIEW

Exposed food runs the risk of becoming contaminated. An open garbage barrel like this one increases the danger

Perspiration and Body Odor

How they may influence friends and alienate people. With some notes on deodorants and anti-perspirants

ONE of the realistic touches that the movies are fond of is the picture of a man under some severe mental strain with beads of perspiration standing out on his brow. If movie directors wanted to be physiologically correct they would show the unhappy fellow wiping his hands on a damp handkerchief, show the dark wet stain on the shirt about the armpits, and the socks wringing wet. For it is chiefly or exclusively in these three regions—the hands, feet and armpits that sweating caused by emotional disturbance or mental strain occurs.

In contrast to this mental variety of sweating is the general sweating occurring over the entire body caused by exposure to high temperature, or by muscular exercise or fever. The main function of such sweating (known as thermal sweating) is the regulation of the body temperature. Evaporation of water through the sweat pores, millions of which are scattered over the body surface, serves to carry off heat and thus maintain the temperature of the body at or near its normal level.

On an ordinary comfortable day about a pint of water is lost from the skin; on a very hot day as much as two to three quarts. Contrary to popular opinion, the sweat glands are of practically no importance in the elimination of waste products. More than 99% of sweat is water, and the chief solid substance is sodium chloride or salt; only traces of waste products are eliminated. The old-time sweat cures for kidney disease and "colds" no longer have a place in modern medical therapy.

While general or thermal sweating has an important role in the mechanics of the body, it is not clear what role mental sweating of the hands, feet and armpits plays. Of course these three regions also participate in thermal sweating, the armpits more than the hands and feet. But what earthly purpose do they serve by sweating privately? If they do serve one it hasn't been detected yet.

This mental sweating may be so marked, in fact, as to be incapacitating. A lawyer complains bitterly to his doctor: "The law is a handshaking profession—and I can't do it." A medical student cannot assist at operations because the sweat runs over the top of his rubber gloves. And the feet and armpits may perspire to a similar extent. Such severe sweating is known as hyperhidrosis. Dickens was acquainted with instances of it, for in his classic description of Uriah Heep he wrote—"It was no fancy of mine about his hands, I observed; for he frequently ground the palms against each other as if to squeeze them dry and warm, besides often wiping them in a stealthy way, on his pocket handkerchief."

The sweat can also be malodorous as well as excessive; the condition in which this is so is known as bromidro-

sis and occurs chiefly in the armpits and on the feet. In these regions free evaporation of sweat is difficult so that decomposition of sweat by bacteria present on the skin occurs. Checking the excessive sweat will diminish or eliminate the bad odor.

Unfortunately, the precise cause of this localized excessive sweating in some people is not known. It may be a symptom of hyperthyroidism, of certain infectious and metabolic disorders, and of disorders of the circulation. Otherwise, all that is known is that emotional factors acting through the sympathetic nervous system are involved. A careful medical examination, therefore, should precede any attempts at self-treatment of excessive sweating.

But medical treatment of nervous sweating not due to hyperthyroidism, &c., has never been satisfactory. Astringent solutions (see below) have helped mild cases, but severe cases require x-ray treatment which must be administered by an expert. In the past few years surgery has also been tried. The operative removal or blocking of certain nerve ganglia of the sympathetic nervous system has been successfully attempted in some cases.

ASIDE from the rather infrequent instances of excessive or abnormal sweating caused by mental factors or disease, sweating is of concern to the hosts of humanity because it is associated with God's gift to the advertising copywriter—B.O.

As a result of large-scale and long-time advertising, the words "Body Odor" have come to signify "Bad Odor" and to be associated with an ordinary bar of soap (*Life-buoy*) endowed with marvelous properties. Scientifically speaking, body odor means odor from the body—and it need not be bad odor.

The body in reality gives off a number of different odors. The most important of these are: (1) the general skin odor—a faint and usually agreeable fragrance often to be detected on the skin immediately after washing; (2) the smell of the hair and scalp; (3) the odor of the breath; (4) the odor of the feet—due mainly to bac-

terial decomposition of the sweat in a closed space; (5) the odor of the armpit; (6) the odor of the genital region; (7) menstrual odor. Body odor, therefore, is a summation or composite of these odors, each differing in kind and intensity in the same person and in different persons.

While some of these odors may have a favorable or neutral effect on people, we are



THERMAL SWEATER

particularly concerned at the moment with the unpleasant ones and, in this respect, first consideration must be given to armpit odor. It is this odor which deodorant advertisements stigmatize as the main cause of B.B.O. (bad body odor). And this, in fact, is consistent with most persons' personal experience.

Sweating in the armpits occurs in a relatively closed space. Consequently evaporation is impaired and the

sweat is subject to decomposition by bacteria. Another and perhaps more important reason for the dominance of the armpits in the hierarchy of odors is that skin of the armpits is rich in a particular kind of sweat gland known as the apocrine glands. The sweat glands over the general body surface, including the hands and feet, are known as eccrine glands. The apocrine glands are larger than the eccrine glands and secrete, besides water and salt, a small amount of aromatic organic material. In man these glands are confined to the armpits, nipples, navel, genital and anal regions. They are regarded as vestigial remains of scent-producing organs, highly developed in lower animals in whom they fulfill sexual functions.

It is well known, of course, that in animals body scents play a most important role in sexual attraction. In man, however, the sense of smell has declined in importance and sexual attraction and selection is determined chiefly by the visual sense.¹ Although the apocrine glands are vestigial in man they contribute more or less to the medley of odors that go to make up B.O. A complete clinical description of the apocrine odor has never been attempted but there is no doubt that in some people it may be very strong and capable of exciting antipathy.

To a slight extent, B.O. may be due to volatile substances poured on to the skin by sebaceous glands. These glands, predominating in the hairy regions, secrete a greasy or lubricating material. In some people, grease is secreted in such quantity as to dominate the body odor.

The subject of body odor is thus a complicated one. No fundamental clinical investigations have ever been undertaken. Consequently the cosmetic manufacturers have had no inhibitions about exploiting the field. The alarmist exhortations in anti-perspirant and deodorizer advertisements are intended to produce an exaggerated fear and self-consciousness:

... somehow Ed seems to avoid Helen now—no longer loves to take her in his arms. And Helen is worried, unhappy! She never dreams, of course, that underarm odor could be keeping them apart.

If Helen's underarm odor is sufficiently strong and unpleasant to threaten her marriage she probably would have been conscious of it herself long ago and consulted her family physician. If the odor is due to excessive sweating, a medical examination would disclose whether it comes from nervous or mental factors or from a general disturbance such as hyperthyroidism. If it is due to local (nervous) causes, more frequent bathing with any good white soap² and the application of talcum powder may be all that is necessary. That is all that is necessary,

¹ For a complete discussion of the role of odors in sexual selection see "Studies in the Psychology of Sex" by Havelock Ellis; Vol. II, Part I; Random House, NYC.

² For ratings of soaps see the March Reports—Ed.



MENTAL SWEATER

also, for anyone who does physical work and sweats profusely. If these measures do not suffice, then the use of a so-called deodorant or anti-perspirant may be called for.

THE subject of deodorants and anti-perspirants—the terms, while technically not identical, may be used interchangeably—has never received the attention by medical investigators that it deserves. A deodorant is a substance that removes or destroys offensive odors. The powders (talc, zinc stearate and kaolin) are often effective deodorants, acting as mechanical adsorbents of sweat and volatile odors. Boric acid powder or a saturated solution of boric acid (one teaspoonful to a glass of water) has a mild antiseptic and astringent action which inhibits the action of bacteria, and thus tends to prevent decomposition of the sweat and sebaceous material. In fact, boric acid powder may be mixed with equal parts of talc or zinc stearate or kaolin to make an excellent deodorant.

Potassium permanganate solution is a deodorant that is particularly useful for sweating, ill-smelling feet. The feet should be soaked twice daily for 20 minutes each time in a basin containing a quart of tap water in which a single 5-grain tablet has been dissolved. After the bath, the feet should be dried and a dusting powder liberally applied. The powder may be reinforced still further by the addition of 1% salicylic acid and/or 1% alum. The brownish discoloration caused by potassium permanganate solution can be removed by lemon juice or vinegar. Preparations containing salicylic acid may be very irritating; use them cautiously and discontinue applications immediately if irritation occurs.

Excessive perspiration of the hands may be treated by frequent sponging with a mixture of equal parts of saturated boric acid solution and rubbing alcohol. Boric acid solution and alcohol are among the blandest of that group of chemical solutions known as astringents. Astringents (or anti-perspirants) diminish perspiration by causing a tightening of the skin and a constricting of the sweat pores. They apparently do not affect the sweat glands themselves.

The most common astringents used in proprietary "anti-perspirants" or "deodorant" lotions and salves are the aluminum salts—particularly aluminum chloride and sulfate. Others contain zinc and iron salts, salicylic acid or benzoic acid. All these astringents are potential irritants and many instances of boils, furuncles and eczema have been traced to the use of a proprietary deodorant containing astringent chemicals. Some deodorants are so strong or so perfumed that the B.O. is replaced by a more penetrating or unpleasant odor of a chemical or a perfume.

A 10% to 25% solution of aluminum chloride prepared by a pharmacist is cheaper and will do just as well as a proprietary lotion. But one must watch for signs of irritation and reduce the percentage of astringent if redness or burning appears. Solutions or salves containing strong astringents, such as aluminum salts, should not be applied to the skin within a day or two after removing hair, in order to avoid irritation. Aluminum solutions have a further disadvantage in that they tend to harm fabrics. This may be avoided by allowing the solution to dry and then sponging with boric acid solution, alcohol, or water.

Cameras and Photographic Equipment

A survey of some of the new products on the market, with comparative descriptions and price-and-quality ratings by CU's photographic consultants

THE flood of new equipment and materials into the photographic market continues unabated. Several new American cameras have been brought forth, and manufacturers have made rapid progress in the production of improved models of old cameras. One important development—the widespread use of the new fast films—has decreased the demand for the ultra-fast and ultra-expensive lenses.

Outstanding among new models of American miniature cameras are the *Argus C2*, the *Perfex 44*, and the *Mercury*. Among these, the *Argus C2* ranks first for all-round performance. This 35 mm. camera is equipped with a *Cintar* f:3.5 lens, a built-in, coupled range finder, shutter speeds of from 1/5 to 1/300 second, and other features generally found only in the more expensive cameras. At the price, \$25, it is an excellent value.

The *Mercury*, which also sells for \$25, is another good camera. It has an accurate rotary focal-plane shutter, with speeds from 1/20 to 1/1000 second, a *Tricor* f:3.5 lens, and automatic film transport which eliminates the possibility of double exposures. Because of the short focal length of the lens, depth of focus is great. An additional feature is the built-in synchronizer for flashlight photography. The camera can be focused as close as 18 inches from the object. In two respects the *Mercury* compares unfavorably with the *Argus C2*: it lacks a range finder, and its negative size is barely more than half the size of the usual 35 mm. double frame negative.

The *Perfex 44* is a well-designed camera, and would be an excellent buy were it not for a minor structural defect. It is equipped with either f:3.5 or f:2.8 anastigmat lens, a coupled range finder, built-in extinction-type exposure meter, built-in synchronizer, automatic film transport, and shutter speeds of from 1 to 1/1250 second. The price is \$37.50 or \$47.50, depending on the

lens. Unfortunately, despite its virtues, the *Perfex 44* cannot be recommended until the manufacturer has eliminated a weakness in the camera interior. The platform over which the film passes when it is wound is made of a soft metal, which can easily be pushed out of position. This changes the focal plane, with the result that negatives may be fuzzy and out of focus, when the camera is used with a wide aperture, or for close-up work. It is only with extreme care in loading the film that this difficulty can be avoided.

The three *Kodak 35's*—the f:5.6, f:4.5 and f:3.5—are sturdily constructed and well designed. They are simply made, without the many accessories usual on other cameras at the same price levels. But they are good, strong, reliable instruments. The prices are \$14.50, \$24.50 and \$33.50, depending on the lenses—about 20% less than prices of the same cameras a few months ago.

The *Kodak 35's* are better buys than the *Agfa Memo* cameras. The latter have *Memar* f:3.5 and f:4.5 lenses in a new-type *Anso* shutter, with speeds of from 1/2 to 1/300 second. A depth of field guide is built in. The *Memo* has a specially designed cartridge, so that only *Agfa* film can be used with it, thus the range of films available for this camera is restricted and inexpensive bulk film is out of the question.

The *Argus A2* and the *Argus A2F* are new models based on the original *Argus A*. The \$15 *A2F* has a rather convenient lens mount and manual focusing, both of which are lacking on the \$12.50 *A2*. Both models have built-in extinction-type exposure meters, f:4.5 lenses, and shutter speeds of from 1/25 to 1/200 second.

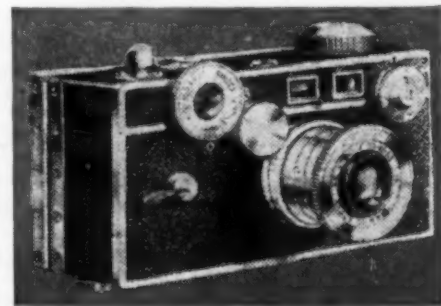
Not as good as the *Argus A2's*, but still good values at the price are the *Detrolas*. Whereas all the cameras previously mentioned use 35 mm. film, *Detrola* cameras make 16 exposures on a roll of No. 127 film. Prices range from the \$3.98 Model A with a menis-

cus lens and fixed focus to the Model E, at \$19.50, with f:3.5 lens. All the *Detrolas* have the rather serious defect of weak outer walls which require careful handling to avoid injury.

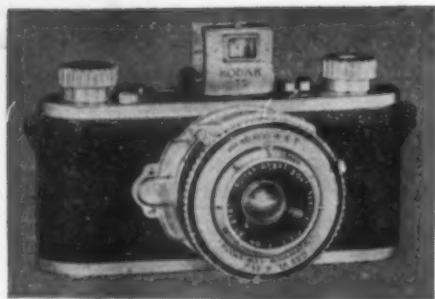
SEVERAL American cameras, similar in appearance to the German two-lens reflexes, have come on the market. In most cases these products, despite the fact that they are sometimes glorified by being called two-lens reflexes, are not reflex cameras at all, but blind cameras with large hooded viewers above the lens.

One of the newest of these is the *Falcon Flex*, a machine that sells for \$5.95 or \$7.95, depending on the lens. The camera is very simple in construction and operation. The fastest lens available is f:7.7, and there are only two shutter speeds—1/25 second and time. A desirable feature, which other more expensive cameras might well imitate, is a built-in collapsible lens shade. The *Falcon Flex* takes twelve 2 1/4 x 2 1/4-inch pictures on No. 120 film.

There are several models of the *Irwin Reflex*, at prices ranging from \$4.95 to \$25. The *Irwin Dual Reflexes* are comparable to the *Falcon Flex*, but the latter is by far the better buy. The *Irwin Super Tri Reflex*, at \$19.95 with f:4.5 lens, or \$25 with f:3.5, is fairly well constructed, and with care, will give fairly satisfactory service. All models make sixteen 1 5/8 x 1 1/4-inch pictures on No. 127 film. They are fair in construction, durability and design.



ARGUS C2



KODAK 35

The *Super Kodak Six-20* is a new development among cameras. It has a range finder and a coupled automatic light selector, which automatically sets the diaphragm for correct exposure at any given shutter speed from 1/25 to 1/200 second. For speeds lower than 1/25 second, the diaphragm must be hand-set as with other cameras. The split-field range finder and the view finder of this camera are combined into one window—a feature which makes for convenience in quick work. The film-winding mechanism advances the film and sets the shutter at the same time. There is no automatic device to guard against double exposure, but a red signal on the speed dial window indicates when an exposure has been made on the film in the frame.

Although it is rather heavy and bulky, this camera is very well constructed. The method of operation is extremely simple, and aside from the actual composition, few problems are left to the discretion of the user. The lens is an ordinary *Kodak Anastigmat Special* f:3.5. The camera may be desirable for those who want to do a minimum of adjusting, but at \$225 the cost of the extra convenience is extremely high.

AMONG German cameras, the new *Standard Rolleiflex* at \$128.50 is outstanding. It has two improvements over the earlier *Rolleiflex Standard*; the first improvement is a mechanism which prevents double exposure, and the second is a mirror which permits eye-level focusing. With these improvements, the *Standard* ranks very close in convenience to the excellent *Rolleiflex Automatic* (\$152.50).

The *Pilot Super*, a single lens reflex, shows considerable improvement over its predecessor, the *Pilot 6*. It is available with *K. W.* anastigmat lenses of f:2.9, f:3.5 or f:4.5, for \$28.50 to \$45. The rotary focal plane shutter has speeds from 1/20 to 1/200 second. Among useful features are the built-in extinction-type exposure meter, inter-

changeable lenses (f:4.5 telephoto lens is available), and a built-in mask. The mask makes it possible to take either twelve 2 1/4 x 2 1/4-inch pictures or sixteen 1 5/8 x 2 1/4-inch ones.

The *Zeiss Ikontas A, B and C* are excellent, but overpriced. The corresponding *Kodak Specials* and *Kodak Duo Six-20's* are better buys. The *Zeiss Nettars, A and C*, are good cameras, comparatively reasonably priced. But the *Kodak Juniors, Six-16 and Six-20, Series III*, are better buys than the *Nettar C*. Both are available with lenses from f:8.8 to f:4.5, *Kodak* or *Diomatic* shutters. The *Six-20* (eight 2 1/4 x 3 1/4-inch pictures on No. 620 film) costs from \$12.50 to \$22; the *Six-16* (eight 2 1/2 x 4 1/4-inch pictures on No. 616 film) costs from \$14 to \$25. Features include *Kodak Anastigmat* lenses, body shutter release, and delayed action on the f:4.5 model.

The new *Zeiss Tenax I* is less versatile but cheaper than the original *Zeiss Tenax*. It is very compact, and makes 50 pictures, an inch square, on regular 36 exposure *Contax* daylight loading spools. Its outstanding feature is the design which permits the photographer to take pictures in rapid sequence. The lens is a *Novar* f:3.5

Ratings of New Cameras and Photographic Equipment—Cameras

Explanation of ratings: E—Excellent; G—Good; F—Fair; N.A.—Not Acceptable. Ratings are based on quality with respect to price.

CAMERA	PRICE (\$)	LENS	SHUTTER	FILM	REMARKS	RATING
<i>Argus C2</i> (International Research Corp.)	25.00	Cintar f: 3.5, interchangeable	Behind-the-lens, 1/5 to 1/300 sec.	36-1 x 1 1/2 in. pictures on 35 mm. film.	Coupled range finder. Good performance. "Best Buy" among American 35 mm. cameras.	E
<i>Mercury</i> (Universal Camera Corp.)	25.00	Wollensak Tricolor f: 3.5, interchangeable	Rotary focal plane 1/20 to 1/1000 sec.	36-3/4 x 31/32 in. pictures on <i>Univex</i> 35 mm. film.	Automatic film transport. Built-in flashlight synchronizer. Note small size of negative.	G
<i>Perflex 44</i> (Candid Camera Corp.)	37.50 or 47.50, depending on lens	Anastigmat f: 3.5 or f: 2.8	Focal plane 1 to 1/1250 sec.	36-1 x 1 1/2 in. pictures on 35 mm. film.	Coupled range finder. Built-in exposure meter and synchronizer. Automatic film transport. (See text)	E
<i>Kodak 35</i> (Eastman)						
f: 5.6	14.50	Kodak Anastigmat Special f: 5.6	Kodak 1/25 to 1/100 sec.	36-1 x 1 1/2 in. pictures on 35 mm. film.	Folding optical finder. Automatic exposure counter.	E
f: 4.5	24.50	f: 4.5	Diomatic to 1/150 sec.		Delayed action on f: 4.5 and f: 3.5, also device for prevention of double exposure.	E
f: 3.5	33.50	f: 3.5	Kodamatic to 1/200 sec.			E
<i>Memo</i> (Agfa)	35.00	Memar f: 3.5	New type 1/2 to 1/300 sec.	24-1 x 1 1/2 in. pictures on <i>Agfa</i> 35 mm. film.	Depth of focus guide. Automatic exposure counter and film transport.	G
	25.00	Memar f: 4.5				
<i>Argus A2</i>	12.50	f: 4.5 anastigmat	1/25 to 1/200 sec.	36-1 x 1 1/2 in. pictures on 35 mm. film.	Built-in exposure meter. Fixed focus.	E

which, because of its short focal length ($1\frac{3}{8}$ inch), gives great depth of focus. Shutter speeds of the *Compur* shutter are from 1 to 1/300 second. The camera is a good value only for specialists in sequence photography; for the same price (\$60) will buy a better all-round camera with a much better lens.

The *Robot II*, like the *Tenax*, is valuable for sequence pictures. It differs from the original *Robot* in its range of shutter speeds— $\frac{1}{2}$ to 1/500 second instead of 1 to 1/500 second—and in its lack of a built-in filter. But it has a built-in synchronizer, which the earlier model lacks. It costs \$5 more than the corresponding *Robot I*, and is available with lenses from *Zeiss Tessar* f:3.5 at \$129 to *Zeiss Biotar* f:2 at \$184.

Exposure Meters

EXPOSURE meters have made considerable advances in recent months. Outstanding is the new *Weston Master*, Model No. 715 (\$24). This instrument is different in design from the old *Weston*, and is well worth the \$1.50 difference in price. New features

include an expanded sensitivity range, improved legibility at low light levels, and a cap arrangement over the photoelectric cell, for change in light sensitivity. As the cap is moved into place over the face of the cell, a new scale is automatically moved into position, so that correct meter readings can be made easily, without confusion. The range of film speeds has also been expanded, so that the meter can be read directly for even the fastest film.

The *Argus Photar*, at \$8.75, is a sturdy, comparatively inexpensive instrument. Compared to the new *Weston*, its sensitivity is only fair—about equal to that of the older *Weston* No. 650. The dials are large, and the legibility excellent, but since the face is not on the same side as the instrument dials, the meter must be turned over in order to make an exposure calculation. The film speed ratings, in *Weston* units, are just adequate to cope with the fastest films now being made, but no provision is made for direct reading of faster films, should they appear on the market. And the lowest film speed is too high to take care of such slow films as *Process* or *Kodachrome*. Moreover, there is no zero ad-



FALCON PRESS-FLASH

justment—a defect, since meters need to be adjusted occasionally for accuracy in the low light ranges.

The new *De Jur Amsco* Model No. 5 (\$10.50) shows considerable improvement over the old model. Although the sensitivity is no more than equal to that of the *Argus*, the *De Jur* has a wide film speed range, a zero adjustment, and it does not need to be turned over to make a reading.

The *Photrix "SS"* (\$17.50) is the American cousin of the German *Photrix*. It is an excellent instrument, except for one disadvantage: the indicator needle has a very long period of vibration, so that there is considerable delay before the needle comes to a

Ratings of New Cameras and Photographic Equipment—Cameras

CAMERA	PRICE (\$)	LENS	SHUTTER	FILM	REMARKS	RATING
<i>Argus A2F</i>	15.00	f: 4.5 anastigmat	1/25 to 1/200 sec.	36-1 x 1 1/2 in. pictures on 35 mm. film.	Built-in exposure meter. Manual focusing. Screw-in lens mount.	E
Detrola						
Model A.....	3.98	meniscus	.....	.....	.....	F
Model B.....	9.50	f: 7.9	1/25, T and B	.....	Fixed focus on Model A.	F
Model D.....	15.00	f: 4.5 anastigmat	1/25 to 1/200 sec.	.....	Optical view finder on all models except A.	F
Model E.....	19.50	f: 3.5 anastigmat	1/25 to 1/200 sec.	16-1 5/8 x 1 1/4 in. pictures on No. 127 film.	Exposure indicator on all except A and G.	G
Model G.....	9.95	f: 4.5 anastigmat	1/25 to 1/200 sec.	.....	.....	G
Model H.....	12.50	f: 4.5 anastigmat	1/25 to 1/200 sec.	.....	.....	G
Model K.....	17.50	f: 3.5 anastigmat	1/25 to 1/200 sec.	.....	.....	G
Super Kodak						
Six-20.....	225.00	Kodak Anastigmat Special f: 3.5	1/25 to 1/200 sec. Automatic	8-2 1/4 x 4 1/4 in. pictures on No. 620 film.	Split field range finder. Coupled automatic light selector to set diaphragm for correct exposure.	E
Falcon Flex (Utility Mfg. Co.).....	5.95 or 7.95, depending on lens	Faltar or f: 7.7 achromatic	1/25 sec. and T	12-2 1/4 x 2 1/4 in. pictures on No. 127 film.	Built-in collapsible lens shade.	G
Irwin Dual Reflex (Irwin Corp.).....	4.95 to 7.50, depending on lens	Eyvar or f: 7.7	1/25 sec. and T	16-1 5/8 x 1 1/4 in. pictures on No. 127 film.	Fixed focus. Shoulder cord.	N.A.
Irwin Super Tri Reflex	19.95 to 25.00, depending on lens	f: 4.5 or f: 3.5 anastigmat	1/25 to 1/200 sec.	16-1 5/8 x 1 1/4 in. pictures on No. 127 film.	Focus from 3 ft. to infinity. Shoulder cord.	F
New Standard Rolleiflex (Burleigh Brooks)	128.50	Tessar f: 3.5	Compur Rapid 1 to 1/500 sec.	12-2 1/4 x 2 1/4 in. pictures on No. 120 film.	Automatic film stop to prevent double exposure. Folding mirror for eye-level focusing.	E



WESTON MASTER

stop. And this is especially annoying at high light intensities. But the sensitivity of the *Photrix* is excellent, and operation is easy and rapid. Film speed ratings are in American Scheiner degrees. The meter is heavy, but it is shaped to fit the hand comfortably. Less recently introduced than other meters covered here, the *Photrix* is included for comparative purposes.

The *Mini*, a German meter which sells for \$12.50, has no particular advantages over the other meters mentioned. Its accuracy is only fair, and there is no zero adjustment of the indicator needle. The instrument is small and light in weight; legibility is good. But in general, it does not offer as good value as some other meters in the same price class.

Several good exposure meters of the extinction type have recently appeared on the photographic market. Outstanding among them is the *Saymon-Brown*, at \$2. This is a small, lightweight instrument which is provided with a boot so that it can be attached to any camera equipped with a shoe. It differs in one major respect from other meters of the extinction type—it has a direct-reading chart, which makes it very simple to operate. Excellent, too, is the provision for adjustment to the individual eyesight of the user. A minor disadvantage, which can be overcome with a little practice, is the fact that the extreme right-hand column is at first difficult to decipher.

The *Pierce*, also selling for \$2, is another very good meter. Operation is slightly less rapid than that of the *Saymon-Brown*, but once learned, the method is not difficult. Since its scale goes up to eight minutes, this meter is especially useful for indoor or night pictures which require long exposures.

The *Argus*, at 25¢, is, price considered, a "Best Buy" among meters. Legibility and accuracy are excellent, and operation is easy and rapid. One must take care, in using the instrument, not to lose the sliding panel, which is

readily detached. Surprisingly enough, the too-narrow film speed range found on the *Argus Photar* (see page 23) is corrected on this cheaper instrument.

The \$1 *Vest Pocket FR* is an accurate, easily legible, compact meter, which can also be considered a "Best Buy." A leaflet which accompanies the meter gives clear directions for use.

The \$1.50 *Imperial* is, in general, quite unsatisfactory. The range is limited, and reading is difficult or even impossible at low light intensities.

The single important innovation among calculation meters is the *Tri-R*. This ingenious device, which can be used equally well for daylight, photoflood and photoflash work, is constructed with allowance for such factors as the time of day, the month, the type of light, &c. The result is a surprisingly accurate reading. The meter can be simply and rapidly operated with one hand.

Flashlight Synchronizers

FLASHLIGHT synchronization has grown from a strictly professional to a predominantly amateur tool. With the increase in interest and in pur-

Ratings of New Cameras and Photographic Equipment—Cameras

CAMERA	PRICE (\$)	LENS	SHUTTER	FILM	REMARKS	RATING
<i>Pilot Super</i> (Burleigh Brooks).....	28.50 to 45.00, depending on lens	K.W. Anastigmat f:4.5 to f:2.9, interchangeable	Focal plane 1/20 to 1/200 sec.	12-2 1/4 x 2 1/4 in. or 16-1 5/8 x 2 1/4 in. pictures on No. 120 film.	Built-in exposure meter. Mask for two negative sizes.	E
<i>Kodak Junior Series III, Six-16</i>	14.00 to 25.00, depending on lens	Kodak Anastigmat f:8.8 to f:4.5	Kodex to 1/100 sec. or Diomatic to 1/150 sec.	8-2 1/2 x 4 1/4 in. pictures on No. 616 film.	Delayed action on f:4.5. Manual focus.	E
<i>Kodak Junior Series III, Six-20</i>	12.50 to 22, depending on lens	Kodak Anastigmat f:8.8 to f:4.5	Kodex to 1/100 sec. or Diomatic to 1/150 sec.	8-2 1/4 x 3 1/4 in. pictures on No. 620 film.	Body shutter release. Eye-level folding optical finder.	E
<i>Tenax I</i> (Zeiss).....	60.00	Novar f:3.5	Compur 1 to 1/300 sec.	50-1 x 1 in. pictures on 35 mm. film.	Very compact. Good for rapid sequence pictures.	G
<i>Robot II</i>	129.00 to 184.00, depending on lens.	Tessar f:3.5 to Biotar f:2	Rotary 1/2 to 1/500 sec.	50-1 x 1 in. pictures on 35 mm. film.	Spring motor for rapid sequence shots. Built-in flash synchronizer. Automatic film transport.	E
<i>Kodak Special Six-20</i>	39.50	Kodak Anastigmat Special f:4.5	New Kodak Supermatic, 1 to 1/400 sec. T and B	8-2 1/4 x 3 1/4 in. pictures on No. 620 film.	Camera similar to <i>Junior Six-20</i> , above, except for shutter.	E
<i>Falcon Press Flash</i> ...	5.95 (including 4 No. 0 Superflash Bulbs and 2-cell battery).	Faltar Precise	Instantaneous and Time.	8-2 1/4 x 3 1/4 in. pictures on No. 120 film.	May be used with or without flash. Reflector built in.	E

chases, many improvements have appeared. Manufacturers of the standard products have added essential refinements; others have brought out cheap synchronizers and cheap cameras with built-in synchronizers.

On the standard automatic synchronizers, the greatest improvements have been in the increased sensitivity of the electrical tripper, and general simplification and neatness of design. This is equally true of all three well-known brands: the *Kalart*, the *Mendelsohn* and the *Abbey*. All three are excellent, but for good design, simplicity and speed of operation, the *Mendelsohn Speedgun* at the present time ranks first. Particularly good are the *Speedguns* ZC2 and L2, for *Contax* and *Leica*, respectively.

Improvements in design and speed of operation have been made on the *Abbey*, and the life span of the batteries on both it and the *Mendelsohn* is increased. On this point, however, the *Kalart* is still superior, primarily because of the design of its mechanical tripper.

In general, the quality of the special synchronizers manufactured by each concern for specific cameras corresponds to the standard instrument.

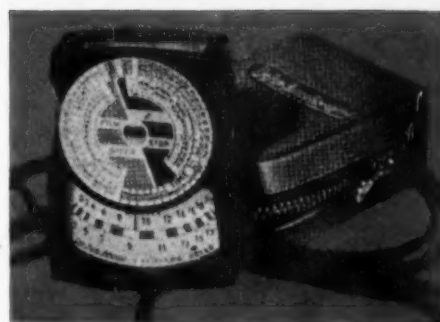
In order of value, price considered, the synchronizers on the market can be listed in the following order: *Kalart*, *Mendelsohn*, *Abbey*.

Non-Automatic Synchronizers

The *Ley Photoflash Synchronizer* and the *Zenith Universal Synchronizer* differ from the instruments previously mentioned in that they have no automatic tripper to coordinate the flash with the shutter mechanism. In using these instruments, it is up to the photographer to trip the shutter and fire the bulb simultaneously.

At moderate shutter speeds, after due adjustment with the flash tester (which is supplied with each instrument), most people can make these synchronizers work satisfactorily.

Although they cannot be considered substitutes for automatic synchronizers, the *Ley* and the *Zenith* are good buys for amateurs who take flashlight pictures only occasionally, especially since their purchase offers such a large saving over the automatic variety. Both can be attached to any of the popular brands of cameras, either with focal plane or between the lens shutters. Both the *Ley* and the *Zenith* are priced at \$6.50.



DE JUR AMSCO 5

Special Synchronizer Units

Two new types of synchronizers have recently made their appearance on the camera market. One type is made for a specific camera, but as a separate, detachable and inexpensive accessory. The other is a synchronizing unit, built as an integral part of small, inexpensive cameras.

Representative of the first group is the *Mercury Photoflash Synchronizer*, selling for \$3.95 and an excellent value for the price. It is unfortunate that their use must be limited to people who own a *Mercury*.

In the second group is the *Falcon Press-Flash* at \$5.95. It does give flashlight pictures within reasonable

Ratings of New Cameras and Photographic Equipment—Enlargers

ENLARGER	PRICE (\$)	NEG. SIZE	MAXIMUM MAGNIFICATION	NEG. CARRIER	LENS	REMARKS	RATING
<i>Argus Argostat</i>	50 without lens.	35 mm. only	8x	No glass	Any 2-inch lens may be fitted.	Excellent construction. Remote focusing control; price high.	E
<i>Argus Automatic Speed Printer</i>	15	35 mm. only	Slightly under 3x	Glass		Good buy for those content with small prints.	G
<i>Argus Electromatic Speed Printer</i>	35					Usable only with <i>Argus Bromex</i> paper. Price high, otherwise good.	G
<i>Solar 4x5</i>	44.50 without lens.	4x5, or smaller with masking.	8x	Metal plates, no glass (in later model)	Any lens of correct focal length may be fitted.	Good enlarger. Very similar to older models of this enlarger for smaller films.	E
<i>Federal Automatic Fixed Focus</i> No. 835.....	12.50	35 mm. and V. P.	3½ x	Glass	Inexpensive lens system.	Fairly good buy, inferior to <i>Argus</i> Automatic Speed Printer at \$15.	F
<i>Federal</i> No. 505.....	9.95	35 mm. to 2½x in.	5x	Glass	f : 8 automatic	Poor construction	N. A.
<i>Federal</i> No. 120.....	17.95	35 mm. to 1¾x ¾ in.	7x	Glass	Fedar		N. A.
<i>Federal</i> No. 636 Variable Projection.....	29.50	35 mm. to 1¾x 2½ in.	2½x	Glass	Anastigmat No. 101.		N. A.
<i>Elwood AM</i> (2 Models)	Each \$27, 35 without lens.	35 mm. to 2¼x ¾ in.	10x	Glass	Any 3-inch lens may be fitted.	One has large silvered reflector, no condensers; other has smaller lamphouse, double condensers.	G

limits of variation in negative density, but its performance is sharply limited by the limitations of the camera. Price considered, the *Falcon* may be considered good. Without the synchronizer it can make ordinary daylight pictures, and in this work, it is equivalent to an inexpensive box camera.

Range Finders

AMONG synchronized range finders, the *Kalart* is the only one showing marked improvement. The Model F (\$24) is designed for *Speed Graphics* having lenses with focal lengths from 10½ cm. (4 inch) to 30 cm. (12 inch); Model K (\$18) is for other ground glass, bellows extension cameras. The finders are easily adjusted from one focal length to another on any camera. If you are handy with tools, and can follow directions closely,

it is simple enough to make the original installation at home; otherwise have the job done by a mechanic. The new *Kalarts* show high accuracy, and are sturdily constructed.

Among nonsynchronized range finders, the improvements recently made on the *Saymon-Brown* make it outstanding in the field. The *Saymon-Brown* at \$4.75 will serve the photographer as well as the excellent *Leitz* finder, which costs more than twice as much. For an additional \$2, the *Saymon-Brown* can be bought with an attached exposure meter (see page 24). Either *Saymon-Brown* finder can be attached to most cameras with a special boot, which costs 25¢.

Tanks

A NUMBER of inexpensive tanks have recently appeared on the market.

Some are excellent values; others are not worth even the little asked.

The "Best Buy" among the new adjustable tanks is the \$3.75 *Albert 4-in-1*. With it goes an unconditional lifetime guarantee against breakage of the bakelite tank-post and spacers. All parts of the tank are made of extra-heavy bakelite. Two other desirable features are the method of construction of the reel parts, which prevents slippage, and a stirring rod well so constructed that it is possible to reach the bottom with a thermometer.

The *FR* at \$2.50 remains the "Best Buy" among 35 mm. tanks, and, for those who do more than one reel at a time, the *FR Double Reel* is excellent. The *National*, *Elkay* and *Fedco* are fairly satisfactory, but in design and construction they are inferior to the *Albert* and *FR*.

The *Fag*, a \$1 tank, is inferior in construction and design. It has the

Ratings of New Cameras and Photographic Equipment—Exposure Meters

METER	PRICE (\$)	APERTURE RANGE	SHUTTER SPEED RANGE	FILM SPEED RATINGS	REMARKS	RATING
Photoelectric Type						
<i>Weston Master</i> Model 715.....	24.00	f: 1.5 to f: 32	100 to 1/1200 sec.	Weston 0.3 to 800	Operation easy and rapid. Sturdy construction. Legibility and sensitivity excellent. Two scales: 25 to 1600 on one, 0 to 50 on other. Rather heavy.	E
<i>Argus Photar</i>	8.75	f: 1.5 to f: 32	3 to 1/1000 sec.	Weston 8 to 125	Meter must be turned over to complete reading. Sturdy construction. Excellent legibility. Sensitivity fair. No zero adjustment.	E
<i>De Jur Amsco</i> Model 5 (recent model)	10.50	f: 1 to f: 32	60 to 1/1000 sec.	Weston 0.3 to 200	Operation easy and rapid. Sensitivity fair. Construction and accuracy good. Lightweight.	G
<i>Mini</i>	12.50	f: 1 to f: 64	60 to 1/2000 sec.	Scheiner 14° to 38°	Sensitivity and construction fair. Operation easy and rapid. No zero adjustment.	F
Extinction Type						
<i>Saymon-Brown</i>	2.00	f: 1.5 to f: 16	8 to 1/2000 sec.	Weston	Attachable to any camera. Operation easy and very rapid. Direct reading chart. Small and lightweight. Accuracy excellent.	E
<i>Pierce</i>	2.00	f: 1.4 to f: 32	8 minutes to 1/1000 sec.	Weston	Accuracy excellent. Operation easy and rapid. Printed film speed must be memorized or consulted at each reading.	E
<i>Imperial</i>	1.50	f: 2.8 to f: 22	6 to 1/1000 sec.	American Scheiner	Limited range, particularly at low light intensities. Hard to read in poor light.	N.A.
<i>Argus</i>.....	.25	f: 2 to f: 22	30 to 1/1000 sec.	Weston	Operation easy and rapid. Legibility and accuracy excellent.	E
<i>FR Vest Pocket</i>	1.00	f: 1.4 to f: 45	120 to 1/1000 sec.	Scheiner	Legibility good. Accuracy excellent. Operation rather complex, but clearly explained. Small and lightweight.	E
Calculator Type						
<i>Tri-R</i>	1.00	f: 1 to f: 45	16 to 1/1000 sec.	Scheiner	Dials calibrated for daylight, photo-flood and flash photography. Accuracy excellent.	E

additional disadvantage of accommodating a maximum of 18 exposures of 35 mm. film, whereas the usual roll holds 36 exposures.

Without question, the *Leitz Daylight Loading* tank is a well-designed product. Its use permits the entire developing process to be carried out in daylight, with the film being reeled from the loading chamber to the tank itself through a lightproof passageway. But most amateur photographers cannot afford to spend \$27 for this minor convenience.

The *Nikor* tanks remain outstanding in the stainless steel class. Although their prices are much lower than they were originally, compared to some of the cheaper bakelite tanks they are still rather costly. On the other hand, they do have some outstanding advantages. *Nikor* tanks can be loaded when wet.

There are *Nikor* tanks for every negative size, up to and including postcard size. In addition, the *Nikor Multiple* tank holds up to four rolls of 35 mm. film, or an assortment of reels of other sizes.

Enlargers

ALTHOUGH new models and brands are constantly reaching the market, few of them offer any radical changes from the old models. Only one, the *Argus EFA Electromatic Speed Printer*, selling for \$35, is actually different and unusual in design. The *Argus EFA* is to enlargers somewhat as the *Super Kodak* is to cameras. Two photoelectric cells in the instrument automatically measure density, and give the picture correct exposure. This automatic feature is of great value; but unfortunately it does place serious limitations on the work. The enlarger works properly only with *Argus Bromex* paper. With other papers it is necessary to make changes in the temperature, composition and dilution of the developer for satisfactory results. And even with great care, the results with paper other than the *Bromex* are apt to be uncertain. The enlarger is of fixed focus, producing prints $2\frac{3}{4} \times 4\frac{1}{4}$ inch from double frame 35 mm. negatives. Although such tricks as photomontage, enlargement of sections of a negative, dodging and darkening of sections are impossible with this enlarger, for making a large

"Made in Germany"

CU had hoped to accompany its technical report on new cameras and photographic equipment with some notes on the labor conditions under which these products are made. Unfortunately, it was impossible to gather sufficient data for such notes.

CU would like to emphasize that its ratings of German photographic equipment are, as with all other products reported on, based solely on the results of technical examinations and tests, without reference to other considerations that might influence purchases. Editorially, CU's strong support of the boycott of Nazi goods has been many times stated. Members who do not wish to buy Nazi products should look for the "Made in Germany" stamp which all products imported from Germany are required to carry.

number of small prints quickly it is an excellent instrument.

The *Argus EF* at \$15 is like the *EFA*, except that it lacks the automatic exposure feature, which makes the *EFA* cost \$20 more. Since exposure is not automatic, the *EF* places no limitation on the types of projection paper which may be used, although the size of enlargement is just as limited as in the more expensive model. It is a good buy for those who are willing to put up with its limitations. Both the *Argus* enlargers are for a-c only; a d-c adapter adds \$1 to the price.

There are several new *Federal* enlargers on the market, covering the whole quality range from good to poor. Model 636 *Variable Projection Printer*, at \$29.50, is unsatisfactory. It is of the fixed focus type, with 8.3 diameter magnification. An automatic masking device accommodates negatives up to $2\frac{1}{4} \times 3\frac{1}{4}$ inch. Neither construction nor design shows adequate care.

The *Federal Automatic Fixed Focus Enlarger* No. 835 is a fair value at the price, \$12.50. It takes 35 mm. film, or equivalent sections of any other film up to 4×5 inch. The f:19 fixed focus lens is adequate for enlargements of the size produced— $3\frac{3}{4}$ diameters. Enlargers of this type are no more difficult to operate than a contact printer, but they provide no opportunity to improve negatives in the process.

The *Federal* Model 505 is "Not Acceptable," despite its low price. Although it has not the limitations of

the fixed focus enlargers, its construction is poor. Model 120 is also "Not Acceptable," because of poor construction. The *Federal* Model 230, despite its higher price, offers a much better value.

Another good but expensive enlarger is the *Argostat*, at \$50. Both construction and design are excellent. Two useful features not often found in enlargers are a magnifying disc for critical focusing at the base of the column, and the built-on *Micrograin* easel. The *Argostat* enlarges 35 mm. film up to 12×18 inches.

There are two styles of the *Elwood Miniature* Model AM. Both are inexpensive, and have very satisfactory construction. The difference between them lies in the method of illumination: one transmits light through a double condenser, the other by diffusion. The former is somewhat better.

An excellent value is the *Solar 4 x 5*. It is well constructed and designed. In general qualities, it is similar to the smaller *Solars* described in earlier reports.

Some of the best enlargers are still to be found in the *Omega* group. The quality of these enlargers is consistently good, and for photographers who can afford their rather high prices, they are better buys than any of the new enlargers listed here.

Miscellaneous

SO MANY new photographic accessories have appeared on the market in recent months that it would be impossible to rate more than a small fraction of them. The ones discussed below are those which, for one reason or another, appear to be of particular interest to the amateur.

The *FR Vaporator* is a unique device which treats film to protect it against scratching, fingerprints, and excessive and premature desiccation. The price is \$12.50. It is an excellent device, though expensive.

The 11×14 -inch *Albert* easel is excellently designed, and offers an adequate solution to the problem of centering small prints on a large easel, as well as keeping them flat and in place. Unfortunately, the construction is not as good as the design. Several of the samples tested showed defects,

which should certainly have been caught with adequate inspection. Because the design is so good, this easel is recommended as a good buy, but only with the provision that it can be returned within 10 days if it is not satisfactory. Purchasers should look especially for parallelism in the masking bands, and for complete freedom of motion in the frame carrying the bands. The price is \$9.75.

The *Hypometer* (\$5) is an instrument which tests electrically for the presence of hypo in wash water. The design is based on the principle that water containing even faint traces of salts (such as hypo) are good conductors of electricity, whereas pure water is a nonconductor. The *Hypometer* is speedy and reliable, but it is worthwhile only for those who do a great deal of darkroom work.

The *Rocker-Rinser*, selling for \$2, is a simple and efficient arrangement for washing prints by automatically emptying and renewing the wash water. It is a good buy.

Enduro Stainless Steel trays are excellent, but for most amateurs not worth the price. Prices range from \$3.75 for the 8 x 10 tray to \$10 for the 11 x 14. They are lightweight, unbreakable, and very easily kept clean.

The *H.C.E.* sunshades are rather high in price, but excellent in quality. They are generally supplied with milled pins, so that they can be firmly attached to the lens mount, and they accommodate filters firmly and snugly.

The \$29.50 *Argus Techniscope* is an excellent outfit for copying, the photography of small objects, and macro- and micro-photography. It is designed for use with the *Argus C* or *C2*.

The *Argus Macro Kit* is a good assortment of necessary appliances for use in macro-photography. It is useful with the *Argus Techniscope*, above.

The *Albert* 4 x 5 printer at \$9.50, and the 5 x 7 at \$18.50, are excellent printers. Their price is high, however, for most amateurs. Other printers, at lower prices, are better buys.

The *Dufaycolor* printer costs \$49.95 plus \$11.45 for accessories which must be used with it. But it is an excellent instrument for the production of separation negatives up to 4 x 5 inches. It is well designed and durably constructed, and may be the first of a series of such products to enable the amateur to make color prints.

Electric Toasters

... vary somewhat in the quality of toast they turn out, vary widely in convenience, in safety, and in price. CU's tests of 34 models disclose four "Best Buys," nine "Not Acceptables"

AN electric toaster is an excellent modern convenience—but it is also one convenience which is likely to have considerable nuisance value. The poorest toaster will yield better toast than any which could be made by the old-fashioned methods of manipulating bread over a gas burner or dangling it before an open fire. On the other hand, the electric gadget may administer a nasty electric shock; it may burn your fingers, scorch or burn your table.

One of the most important points to consider, when you choose a toaster, is its freedom from just these nuisance values. Seven of the toasters tested by CU radiated enough heat downward to mar the finish of a table, scorch a cloth, or in two cases to cause a fire if left unattended long enough with the current on. And seven toasters showed potential shock hazard—that is, they could not withstand CU's test of 1,000 volts of alternating current applied between the frame and the current-carrying parts; hence, cannot be considered entirely safe for an extended period of hard use. In three of these seven models, there was actually an electrical connection from the

frame to the current-carrying parts. These were rated "Not Acceptable" for that reason alone.

The next question is the quality of the toast the mechanism will produce. Good toast is uniformly brown over its entire surface and has a minimum of soft bread in its center. Of the 34 toasters tested, eight made toast which was sufficiently uniform to rate "exceptional." Six toasters made toast that was partly burned and in part hardly browned at all. The remaining 20 rated as average toastmakers. CU's tests revealed that if the toaster works too quickly, it is likely to char the surface of the bread and leave the center underdone, and of course if it works too slowly you may miss the morning train or drink cold coffee with your toast; but the slow toaster is likely to produce good, crisp toast. The average toaster requires from one and a half to two minutes to make two pieces of toast. Speed is, however, dependent upon the age and quality of the bread used.

In order of importance, the next toaster virtue is probably convenience. And in order of increasing convenience (usually also of increasing cost) the three types of toasters are the non-automatic, the semi-automatic, and the fully automatic. If you use one of the non-automatic variety you must either keep your mind on the toasting or burn the bread. The semi-automatic type is in most cases so constructed that the heat shuts off automatically when the toast is done on one side, and again when it is finished; you need only turn the toast and remove it. And finally, if you buy a fully automatic toaster you need only put in bread and take out toast. The 13 non-automatic toasters tested by CU ranged in price from \$1.89 to \$7.50; the six semi-automatic products cost from \$3.29 to \$5.95; and the cheapest of the 15 fully automatic toasters tested cost \$5.49—the most expensive, \$16.



GOOD (TOP) & BAD (BOTTOM)

Out of 34 toasters tested, 20 did an average job

IF YOU buy an automatic or semi-automatic toaster, you will want to make sure that the first piece of toast, made from a cold start, is done as well as later pieces made after the toaster is hot. From this point of view, the toasters controlled by thermostats are usually preferable to those controlled by clockwork. However, in two of the highest priced clockwork-controlled toasters—the *Toastmaster* and the *GE*—the speed of the clocks is controlled by thermostats so that in these toasters also the first pieces of toast can be thoroughly browned.

The most convenient toaster construction is the pop-up variety in which the finished toast is popped up by hand, or by an automatic release. One non-automatic and 13 automatic toasters were constructed in this way. Considerably less convenient is the so-called tent-shaped toaster in which a door must be pulled down to turn the toast. Although all doors on the tent-shaped toasters tested by CU were designed to turn the toast automatically when they were pulled down, few actually did so; none did so consistently. The tent-shaped construction also offers some particularly good opportunities to burn your fingers when you remove the toast. However, no toaster—even the *Toast-O-Lator*—is foolproof in this particular. (The *Toast-O-Lator* supposedly drops the finished toast into the plate; when this mechanism fails, as it occasionally did in the tests, you must snatch out the toast before the next slice burns.) Even if you use one of the pop-up types you will undoubtedly prefer to remove the toast with a fork—for the hottest part of the slice is the part you must touch in removing the toast.

A reasonably durable toaster should last for several years without the need for major repairs. After that time, heating elements may burn out and in many cases these will not be readily replaceable. Cords are of variable quality, but no cord should prove troublesome unless it is abused. All-cotton covered cord is considered most durable; those which are permanently attached to the toaster are probably the most practical. If the cord is equipped to plug on to the toaster, it is best to leave it thus and to disconnect the

toaster by pulling the plug out of the wall socket. Where the connection pins protrude and are unprotected, this is a particularly wise procedure or you may get a shock from the pins.

Many of the toasters are equipped with plastic bases; these are more fragile than the metal variety, and if they are broken, it is always difficult and often impossible to obtain new ones from the manufacturer.

The cost of the electrical energy needed to operate a toaster will seldom be as much as a dollar a year; it varies so slightly from one toaster to another that it was not considered in the ratings below.

Prices given are list prices.

Non-automatic Toasters

All may be operated on alternating or direct current.

Acceptable

(In estimated order of merit, price considered)

Manning-Bowman Cat. No. —86 (Manning-Bowman & Co., Meriden, Conn.). \$2.95. 420 watts. Made fair quality toast. Doors swing down against table top and may mar surface when hot.

Made-Rite Cat. No. —842 (Made Rite Mfg. Co., Sandusky, Ohio; distrib., Cooperative Distributors as Cat. No. —4575). \$1.95 plus postage. 450 watts. Toasted very slowly, but made satisfactory toast. Doors swing down against table top and may mar surface when hot.

Universal Model E121A (Landers, Frary & Clark, New Britain, Conn.). \$3.95. 525 watts. Handles became hot in use. Made average quality toast.

Universal Model E7812A. \$3.95. 625 watts. Toast less uniform than average.

GE Cat No. —119T48 (General Electric Co., Bridgeport, Conn.). \$4.50. 450 watts. Doors may be shifted to accommodate unusually thick bread or sandwiches. Toast less uniform than average.

Samson United Model 198 (Samson United Corp., Rochester, N. Y.). \$5.98. 550 watts. Large plastic base, convenient but fragile.

Doors may be shifted to accommodate unusually thick bread or sandwiches. Made average quality toast.

Westinghouse Cat. No. —TE-4 (Westinghouse Electric & Mfg. Co., Mansfield, Ohio). \$4.95. 400 watts. Toast less uniform than average.

Westinghouse Cat. No. —TTC-154. \$3.95. 500 watts. Made average quality toast. Some danger that this toaster will scorch the table top if the current is left on longer than 20 minutes without making toast.

GE Cat. No. —119T53. \$3.50. 450 watts. Doors may be shifted to accommodate unusually thick bread or sandwiches. Made average quality toast. Some danger that this toaster will scorch the table top if the current is left on longer than 10 minutes without making toast.

Toastmaster Jr. Model 1B7 (McGraw Electric Co., Minneapolis). \$7.50. 880 watts. Pop-up type, but toast must be popped up by hand. Insulation failed on high voltage

Camera Reports?

FOLLOWING the publication of CU's "Photographic Buyers' Handbook" there have come from the numerous and voluble photographers in CU's membership many requests for periodic reports on the new equipment and materials constantly coming out.

From one member comes the suggestion that CU get out a bi-monthly special report on new photographic equipment to which interested members could subscribe for an additional fee of about \$2 per year. Such special reports would cover the kind of material appearing in this issue, although in much greater detail.

Whether this proposal would be feasible depends mainly on the number of CU members who would be apt to subscribe to such a special service. If you would be interested in bi-monthly special photographic reports at \$2 per year, please fill in and mail to CU the form below.

CONSUMERS UNION

17 Union Square W., NYC.

I would subscribe to special bi-monthly photographic reports to be published by CU for \$2 a year.

NAME

ADDRESS

test; possible hazard of electric shock after period of use. Table top temperature rose high enough to scorch a varnished surface if current left on longer than 30 minutes without making toast. Rated "Acceptable" because equipped with switch which turns toaster off when toast is popped up. Made exceptionally uniform toast. Toasted both sides at once. Price high for a non-automatic toaster.

Not Acceptable

Reverso Cat. No. —512-8 (Knapp-Monarch Co.). \$2.50. 450 watts. Door operation very poor. Handles charred in use and chromium plating became discolored. Some danger that this toaster will scorch the table top if current is left on longer than 30 minutes without making toast.

There was no essential difference between the two following toasters. Rated "Not Acceptable" only because table top temperature rose high enough in test to represent a possible

"Indispensable"

HERE is what Howard Vincent O'Brien of the *Chicago Daily News* says about CU's new "Photographic Buyers' Handbook:"

... steers as clear as is humanly possible away from the troubled waters of opinion; and hews pretty close to the line of demonstrable fact. . . . I would say that the word 'indispensable' was not too strong for this extraordinary volume. . . .

The "Photographic Buyers' Handbook," published by Simon & Schuster, is on sale at bookstores for \$2.75. Members of Consumers Union may get it from CU for \$1.50.

(This blank is for CU members only)

CONSUMERS UNION

17 Union Square West, NYC

Please send me the "Photographic Buyers' Handbook." I enclose \$1.50.

Name.....

Address.....

.....

fire hazard if current is left on without making toast. Except for this hazard, they would be "Acceptable." Doors linked together so that both slices of toast were turned when either door was opened, but doors may need adjusting for easy operation. Made average quality toast.

Sears' Heatmaster Cat. No. — 1971 (Sears-Roebuck). \$1.89 plus postage. 500 watts.

Proctor Turn-O-Matic Model 1453 (Proctor Electric Co.). \$2.95. 500 watts.

Semi-Automatic Toasters

These offered nearly all the advantages of the fully automatic type, and cost less. They operate on either alternating or direct current except where otherwise indicated.

Best Buys

Sears' Heatmaster Cat. No. —1973 (Sears-Roebuck). \$3.29 plus postage. 500 watts. A-c only. Thermostat-controlled. Bell rang when each side of toast was done. Doors linked together so that both slices of toast were turned when either door was opened. Automatic operation of thermostat kept finished toast warm. Made average quality toast.

Proctor Model 1444 (Proctor Electric Co., Philadelphia). \$3.95. A-c only. Tests revealed no essential difference, except for the cord, between this toaster and the *Sears'*.

Also Acceptable

(In estimated order of merit, price considered)

Proctor Model 1440. \$4.95. 500 watts. A-c only. Thermostat-controlled. Similar in essential details to toasters listed above.

Samson No. 505-2 (Samson United Corp., Rochester, N. Y.). \$4.98. 425 watts. Clock-controlled. Current switched off when each side of toast was done. Had a single control lever which had to be carefully set for each piece of toast and was therefore less convenient than the two-control system used in other clock-controlled toasters. You may burn your fingers setting the control. Made average quality toast slowly.

Not Acceptable

Ward's Automatic Cat. No. —5218 (Montgomery Ward). \$4.45. 400 watts. Thermostat-controlled. Current switched off when each side of toast was done. Made medium-light toast, even with control set for darkest possible toast. Door operation poor. Insulation failed on high voltage test, and current-carrying parts were in contact with frame when received; serious danger of electric shock. Not listed in new catalog; may be sold in stores.

Westinghouse Cat. No. —TTC144 (Westinghouse Electric & Mfg. Co.). \$5.95. 500 watts. Although the word "automatic" figured prominently in the advertising of this toaster, it was not in fact automatic. A timer rang a bell when the toast was ready, but it did not shut off the current. Timer unreliable and became inoperative after a short period of use. Greatly overpriced.

Fully Automatic

For alternating or direct current except where otherwise indicated.

Best Buys

Sears' Heatmaster Cat. No. —1974 (Sears-Roebuck). \$7.25 plus postage. 1,150 watts. A-c only. Thermostat-controlled. Pop-up type. Light turned off to indicate toast was done, but toast had to be popped up by hand. Automatic operation of thermostat kept finished toast warm. Made exceptionally uniform toast.

Sears' Heatmaster Cat. No. —2094. \$8.95 plus postage. 1,150 watts. A-c only. Thermostat-controlled. Pop-up type. Very similar to *Heatmaster* —1974, but had a signal bell added to indicate when toast was done and a trigger-release knob to pop up toast. Automatic operation of thermostat kept finished toast warm. Made exceptionally uniform toast.

Also Acceptable

(In estimated order of merit, price considered)

Dominion Style No. 5141 (Dominion)

ion Electric Mfg. Co., Mansfield, Ohio; distrib., Montgomery Ward as Cat. No. —5140). \$5.49 plus postage. 550 watts. A-c only. Clock-controlled. Pop-up type, but had to be popped up by hand. Toasted very slowly and had to be preheated before first slice of bread was inserted. Made average quality toast. Audible click indicated toast was done. When toast was done, switch turned off all but 75 watts of electricity to keep it warm; therefore, this toaster must not be left plugged in when not in use. Not listed in new catalog; may be sold in stores.

Sunbeam Model T-7 (Chicago Flexible Shaft Co., Chicago). \$12.95. 875 watts. Thermostat-controlled. Pop-up type. Current switched off with audible click when toast was done and small light went out, but toast had to be popped up by hand. Plastic molding around base. Made very uniform toast.

Manning-Bowman Cat. No. —110 (Manning-Bowman & Co., Meriden, Conn.). \$12.95. 695 watts. Clock-controlled and must be preheated or first slices of toast will be light. Current switched off when toast was done. Pop-up type, but toast had to be popped up by hand. Handle became hot in use. Plastic molding around base. Made very uniform toast.

Universal Model E7122 (Landers, Frary & Clark, New Britain, Conn.). \$9.95. 800 watts. A-c only. Clock-controlled and must be preheated or first slices of toast will be light. Bell rang when toast was done. Handle became hot in use. Made average quality toast. When toast was done, switch turned off all but 100 watts of electricity to keep it warm; therefore, this toaster must not be left plugged in when not in use. Part of toaster hinged to permit removal of the toast.

Universal Model E7822. \$12.95. 800 watts. Clock-controlled and must be preheated or first slices of toast will be light. Finished toast popped out, but full current continued to flow as long as toaster was plugged in. Made average quality toast.

Samson Tri-Matic Model 194 (Sam-

son United Corp., Rochester, N. Y.). \$11.95. 925 watts. Clock-controlled and must be preheated or first slices of toast will be slightly lighter than the rest. Generally clumsy to operate. Toast inserted on rack at side which slides into toaster when turned on, but trigger-release knob must be pressed to pop out toast. Insulation failed on high voltage test; some danger of electric shock. Plastic base. Toasted three slices at a time, but had switch to cut off current to two of the four heating elements when only one slice of bread was to be toasted. Made average quality toast. When toast was done, switch turned off all but a small amount of electricity to keep it warm, so this toaster must not be left plugged in when not in use. Audible click indicated toast was done.

Toastmaster 2-Slice Automatic Model 1B8 (McGraw Electric Co., Elgin, Ill.). \$16. 1,100 watts. Clock-controlled, but automatically compensated for cold start so no preheating required. Toast popped up and current turned off when done. Plastic molding around base. Made good quality toast. A well-designed toaster, but price high.

GE Cat. No. —129T75 (General Electric Co.). \$16. 1,100 watts. Clock-controlled, but automatically compensated for cold start so no preheating required. Toast popped up and current turned off when done. Made good quality toast. Plastic molding around base. Design similar to that of *Toastmaster*; price high.

Toast-O-Lator Model C (Crocker-Wheeler Electric Mfg. Co., Ampere, N. J.). \$14.95. 700 watts. A-c only. Bread was carried slowly through the toasting compartment by a motor-operated conveyor. Must be preheated. No provision for re-toasting too light toast. If bread slices not uniform or large, possibility of their sticking in toaster and burning. Difficult to vary the degree of toasting appreciably without using a screwdriver to change an adjustment inside toaster. Working parts durably constructed. Plastic base. Method of conveying toast past heating elements makes exceptionally uniform toast.

Not Acceptable

Proctor De Luxe Automatic Model 1437 (Proctor Electric Co.). \$9.95. 1,150 watts. A-c only. Very similar in design to *Sears'* —2094. Rated "Not Acceptable" because two out of seven toasters of this model tested were defective. In one a piece of insulating material had been left out of the signal bell mechanism, so that the current-carrying parts were in contact with the metal frame creating serious danger of electric shock. In the other defective toaster one turn of the heating element wire had come loose from its mica support and was in contact with the toaster frame, also creating a shock hazard. Both of these defects were the result of poor inspection. CU considers the design of this toaster excellent and would rate it as a "Best Buy" if the final inspection on it were improved.

Knapp-Monarch Tel-A-Matic Cat. No. —537 (Knapp-Monarch Co.). \$9.95. 800 watts. A-c only. Thermostat-controlled. Current switched off when toast was done. Toast popped up by turning knob on side. Current-carrying parts in contact with frame when received, involved serious danger of electric shock. Inspection showed that clearance between the bottom metal cover plate and the current-carrying part of the control equipment was inadequate so that it was possible for the two sections to touch each other. This toaster made good toast and would precede the *Dominion* No. 5141 in rating if shock hazard were not present.

There was no apparent difference between the two following toasters, other than ornamentation. They were clock-controlled pop-up type. In both toasters the electrical insulation failed; current-carrying parts were in contact with the frame creating a serious danger of electric shock. Ward's toast rack slide failed in operation.

Ward's Automatic Oven-Type Cat. No. —5141 (Montgomery Ward). \$7.49 plus postage. Not listed in new catalog; may be sold in stores.

Dominion Style 602 (Dominion Electric Mfg. Co.). \$9.95.

Consumers Union of United States, Inc.

"The purposes for which it is to be formed are . . . to obtain and provide for consumers information and counsel on consumer goods and services . . . to give information and assistance on all matters relating to the expenditure of earnings and the family income . . . to initiate, to cooperate with, and to aid individual and group efforts . . . seeking to create and maintain decent living standards for consumers."—from Consumers Union's Charter.

None of Ours

THE organized consumer movement, as CU has pointed out from time to time, is both very young and very fast-growing. As such it unavoidably attracts to it certain individuals and groups motivated less by a desire to serve and promote the interests of consumers than by the hope of exploiting those interests. Thus the advertising industry, and the publications that serve that industry so faithfully, go about setting up consumer groups and consumer bureaus and consumer commissions—anything at all so long as consumer is somewhere in the title and propaganda for advertising somewhere in the background. And then there are the simple racketeers.

Most notable exponent of the racketeering angle that has come to our attention is one Albert Lane. If you live in New York City he has probably come to your attention, too. For in recent weeks he has been sending street salesmen into heavy-traffic sections of the city to hawk his publication, *Consumers Bureau Guide*.

This curious journal used to be known as *Consumers Bureau Reports*. That name was dropped by court order after CU brought suit against Mr. Lane, charging him with deception in thus imitating the name of *Consumers Union Reports*. The judge commended CU's counsel for his case, expressed his respect for CU, and issued an injunction against Mr. Lane.

Meantime Mr. Lane has been on the receiving end of a Federal Trade Commission complaint on which hearings were held last month. This came about because Mr. Lane had been caught making misrepresentations about what he had to offer, and because he appeared much more interested in free samples of products and in selling large quantities of his publication to manufacturers, than in aiding consumers.

There are many more points on which Mr. Lane can be shown, and has been shown, to be out for what he can get, without particular regard for how he gets it. But it serves no particular purpose to detail them all here. The only thing that bothers us is that, despite the changed name, some people still confuse *Consumers Bureau Guide* with *Consumers Union Reports*. And we have word that at least one of Mr. Lane's street salesmen specifically said that he was connected with Consumers Union.

We want to make it plain that neither we nor any other reputable consumer organization has anything to do with Mr. Lane or any of his works. The function of a consumer organization is to serve consumers.

The Facts of Life

MOST American magazines and newspapers that we have approached will not accept Consumers Union advertisements. Exceptions have mainly been those publications which do not depend for their financial life on paid advertisements—trade union papers, subsidized periodicals, liberal magazines, &c. And although CU's attempts to buy time on the air have so far not been extensive, still, in this field also, we have already met with endless hedging, round-about refusals.

On Thursday, July 20, at 12:55 P.M. the National Broadcasting Co. put on one of its 10 weekly hours of television broadcasting. And along with two moving picture travelogues and some musical entertainment, what should appear but a film called "Getting Your Money's Worth," produced by the Film League in conjunction with Consumers Union—dramatizing, among other things, some important buying facts about shoes, milk, lead toys for children?

We called the gentleman in charge of television programs at NBC. We asked him how he happened to do it.

Well, said the gentleman, he liked the film.

But, we argued, why hadn't he asked for some pledge of CU's integrity from assorted Congressmen and college presidents? Hadn't he thought of coming to inspect our laboratories and check up on our tests? Hadn't it occurred to him to ask for a look at our books?

No, said the gentleman, he liked the film.

And your advertisers? we asked him.

Oh, that, said the gentleman. Why, there are no advertisers. We operate on an experimental license which forbids us to sell time. Television is an experiment, you understand.

We said we understood.

WE THINK we understand, too, the motivations behind the recent editorial in *Collier's* attacking the consumer movement under the heading, "Consumers Need No Nursemaids." A number of people wrote in to call this to our attention, and we had laid plans to run an answering editorial in this issue. However, it's a big subject. And our answer went beyond the bounds of editorial page space. We refer you—and *Collier's*—to page 14.

D. H. PALMER	ARTHUR KALLET	D. W. MASTERS
Technical Supervisor	Director	Publications Director

OFFICERS: Colston E. Warne, *President*; William M. Malisoff, Robert A. Brady, James Gilman, *Vice-presidents*; Adelaide Schulkind, *Secretary*; Bernard Reis, *Treasurer*.

BOARD OF DIRECTORS: Harold Aaron, Hartley W. Cross, Jerome Davis, Osmond K. Fraenkel, A. J. Isserman (*Counsel*), Arthur Kallet, Paul J. Kern, William M. Malisoff (*Special Chemical Adviser*), Mark Marvin (*Staff Representative*), Dexter Masters, Kathleen McNerny, D. H. Palmer, A. Philip Randolph, Bernard Reis, Adelaide Schulkind, Colston E. Warne, Goodwin Watson.

STAFF TECHNICIANS: Catherine B. Armstrong, Robert Dunbar, John Heasty, Ferd. Mann, Gifford McCasland, Madeline Ross.

EDITORIAL STAFF: Vernon Smith, Janet Welt; Mark Marvin (*Labor*), Rachel Lynn Palmer (*Legislation*).